DUKANE

Portable LCD Projector

Model 8806

8808



USER'S MANUAL

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NOTES

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(2) The contents of this guide are subject to change without notice.

(3) Great care has been taken in the preparation of this manual; however, should you notice any questionable points, errors, or omissions, please contact us.

(4) Notwithstanding article (3), Dukane will not be responsible for any claims on loss of profit or other matters deemed to result from using this projector.

Important Information

Safety Cautions

Precautions

Please read this manual carefully before using your 8806/8808 projector and keep the manual handy for future reference. Your serial number is located on the right side of your projector. Record it here:

CAUTION

To turn off main power, be sure to remove the plug from power outlet.
The power outlet socket should be installed as near to the equipment as possible, and should be easily accessible.

CAUTION

TO PREVENT SHOCK, DO NOT OPEN THE CABINET.
THERE ARE HIGH-VOLTAGE COMPONENTS INSIDE.
REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

This symbol warns the user that uninsulated voltage within the unit may be sufficient to cause electrical shock. Therefore, it is dangerous to make any kind of contact with any part inside of the unit.

This symbol alerts the user that important information concerning the operation and maintenance of this unit has been provided.
The information should be read carefully to avoid problems.

WARNING: TO PREVENT FIRE OR SHOCK, DO NOT EXPOSE THIS UNIT TO RAIN OR MOISTURE.
DO NOT USE THIS UNIT'S PLUG WITH AN EXTENSION CORD OR IN AN OUTLET UNLESS ALL THE PRONGS CAN BE FULLY INSERTED.

DOC Compliance Notice (for Canada only)

This Class B digital apparatus meets all requirements of the Canadian Interference-Causing Equipment Regulations.

Acoustic Noise Information Ordinance-3. GSGV (for Germany only):

The sound pressure level is less than 70 dB (A) according to ISO 3744 or ISO 7779.



This label is on the side of the remote control.



This mark is on the top of the remote control.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

CAUTION

Do not look into the laser pointer while it is on and do not point the laser beam at a person. Serious injury could result.

CAUTION

Avoid displaying stationary images for a prolonged period of time.
Doing so can result in these images being temporarily sustained on the surface of the LCD panel.
If this should happen, continue to use your projector. The static background from previous images will disappear.

WARNING TO CALIFORNIA RESIDENTS:

Handling the cables supplied with this product, will expose you to lead, a chemical known to the State of California to cause birth defects or other reproductive harm. Wash hands after handling.

Disposing of your used product



EU-wide legislation as implemented in each Member State requires that used electrical and electronic products carrying the mark (left) must be disposed of separately from normal household waste. This includes projectors and their electrical accessories or lamps. When you dispose of such products, please follow the guidance of your local authority and/or ask the shop where you purchased the product.
After collecting the used products, they are reused and recycled in a proper way. This effort will help us reduce the wastes as well as the negative impact such as mercury contained in a lamp to the human health and the environment at the minimum level.
The mark on the electrical and electronic products only applies to the current European Union Member States.

RF Interference (for USA only)

WARNING
The Federal Communications Commission does not allow any modifications or changes to the unit EXCEPT those specified. in this manual. Failure to comply with this government regulation could
void your right to operate this equipment. This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation.
If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio / TV technician for help.

For UK only: In UK, a BS approved power cable with moulded plug has a Black (five Amps) fuse installed for use with this equipment. If a power cable is not supplied with this equipment please contact your supplier.

Important Safeguards

These safety instructions are to ensure the long life of your projector and to prevent fire and shock. Please read them carefully and heed all warnings.

⚠ Installation

- Do not place the projector in the following conditions:
 - on an unstable cart, stand, or table.
 - near water, baths or damp rooms.
 - in direct sunlight, near heaters or heat radiating appliances.
 - in a dusty, smoky or steamy environment.
 - on a sheet of paper or cloth, rugs or carpets.
- If you wish to have the projector installed on the ceiling:
 - Do not attempt to install the projector yourself.
 - The projector must be installed by qualified technicians in order to ensure proper operation and reduce the risk of bodily injury.
 - In addition, the ceiling must be strong enough to support the projector and the installation must be in accordance with any local building codes.
 - Please consult your dealer for more information.

Place the projector in a horizontal position

The tilt angle of the projector should not exceed 10 degrees, nor should the projector be installed in any way other than the desktop and ceiling mount, otherwise lamp life could decrease dramatically.



Fire and Shock Precautions

- Ensure that there is sufficient ventilation and that vents are unobstructed to prevent the build-up of heat inside your projector. Allow at least 4 inches (10cm) of space between your projector and a wall.
- Do not try to touch the ventilation outlet on the left front (when seen from the front) as it can become heated while the projector is turned on.
- Prevent foreign objects such as paper clips and bits of paper from falling into your projector. Do not attempt to retrieve any objects that might fall into your projector. Do not insert any metal objects such as a wire or screwdriver into your project. If something should fall into your projector, disconnect it immediately and have the object removed by a qualified service personnel.
- Do not place any objects on top of the projector.
- Do not touch the power plug during a thunderstorm. Doing so can cause electrical shock or fire.
- The projector is designed to operate on a power supply of 100-240V AC 50/60 Hz. Ensure that your power supply fits this requirement before attempting to use your projector.
- Do not look into the lens while the projector is on. Serious damage to your eyes could result.
- Keep any items such as magnifying glass out of the light path of the projector. The light being projected from the lens is extensive, therefore any kind of abnormal objects that can redirect light coming out of the lens, can cause unpredictable outcome such as fire or injury to the eyes.
- Do not cover the lens with the black lens cap or equivalent while the projector is on. Doing so can lead to melting of the cap and possibly burning your hands due to the heat emitted from the light output.
- Do not place any objects, which are easily affected by heat, in front of the projector lens or a projector exhaust vent. Doing so could lead to the object melting or getting your hands burned from the heat that is emitted from the light output and exhaust.
- Handle the power cable carefully. A damaged or frayed power cable can cause electric shock or fire.
 - Do not use any power cables than the supplied one.
 - Do not bend or tug the power cable excessively.
 - Do not place the power cable under the projector, or any heavy object.
 - Do not cover the power cable with other soft materials such as rugs.
 - Do not heat the power cable
 - Do not handle the power plug with wet hands.
- Turn off the projector, unplug the power cable and have the object removed by a qualified service personnel under the following conditions:
 - When the power cable or plug is damaged or frayed.
 - If liquid has been spilled into the projector, or if it has been exposed to rain or water.
 - If the projector does not operate normally when you follow the instructions described in this user's manual.
 - If the projector has been dropped or the cabinet has been damaged.
 - If the projector exhibits a distinct change in performance, indicating a need for service.
 - If the projector is not to be used for an extended period of time.
- Disconnect the power cable and any other cables before carrying the projector
- Turn off the projector and unplug the power cable before cleaning the cabinet or replacing the lamp.
- When using a LAN cable:
 For safety, do not connect to the connector for peripheral device wiring that might have excessive voltage.

CAUTION

- Always carry your projector by the carrying handle. Before doing so, be sure to lock the carrying handle in place. To lock the carrying handle, see "To lock the carrying handle" on page 6.
- Do no use the tilt-foot for purposes other than originally intended. Misuses such as using the tilt foot to carry or hang (from the wall or ceiling) the projector can cause damage to the projector.
- Do not send the projector in a soft case by parcel delivery service or cargo shipment. The projector inside the soft case could be damaged.
- Select [High] in Fan mode if you continue to use the projector for consecutive days. (From the menu, select [Setup - Options] → [Fan Mode] → [High].)
- Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.
- Do not unplug the power cable from the wall outlet or projector when the projector is powered on. Doing so can cause damage to the AC IN connector of the projector and (or) the prong plug of the power cable. To turn off the AC power supply when the projector is powered on, use a power strip equipped with a switch and a breaker.
- The projector can be unplugged during its cool down period after it is turned off. Do not try to touch the ventilation outlet on the left front (when seen from the front) as it can become heated while the projector is turned on and immediately after the projector is turned off.
- Do not turn off the AC power for 60 seconds after the lamp is turned on and while the POWER indicator is blinking green. Doing so could cause premature lamp failure.

Caution on Handling the Optional Lens

When shipping the projector with the optional lens, remove the optional lens before shipping the projector. The lens and the lens shift mechanism may encounter damage caused by improper handling during transportation.

⚠ Remote Control Precautions

- Handle the remote control carefully.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- Do not heat, take apart, or throw batteries into fire.
- If you will not be using the remote control for a long time, remove the batteries.
- Ensure that you have the batteries' polarity (+/–) aligned correctly.
- Do not use new and old batteries together, or use different types of batteries together.
- Dispose of used batteries according to your local regulations.

Lamp Replacement

- To replace the lamp, follow all instructions.
- Be sure to replace the lamp when the message **[The lamp has reached the end of its usable life. Please replace the lamp.]** appears. If you continue to use the lamp after the lamp has reached the end of its usable life, the lamp bulb may shatter, and pieces of glass may be scattered in the lamp case. Do not touch them as the pieces of glass may cause injury.

 If this happens, contact your dealer for lamp replacement.

A Lamp Characteristic

The projector has a high-pressure mercury lamp as a light source.
A lamp has a characteristic that its brightness gradually decreases with age. Also repeatedly turning the lamp on and off will increase the possibility of its lower brightness.

⚠ CAUTION:

When removing the lamp from a ceiling-mounted projector, make sure that no one is under the projector. Glass fragments could fall if the lamp has been burned out.

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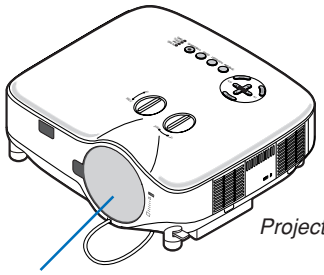
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1. Introduction

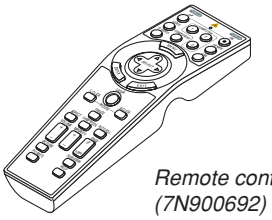
❶ What's in the Box?

Make sure your box contains everything listed. If any pieces are missing, contact your dealer.
Please save the original box and packing materials if you ever need to ship your Projector.

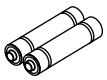


Projector

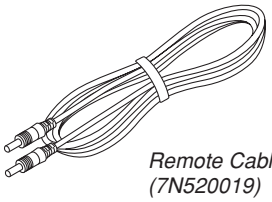
Lens cap
(24FT9741)



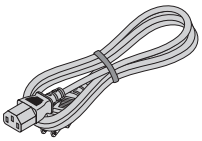
Remote control
(7N900692)



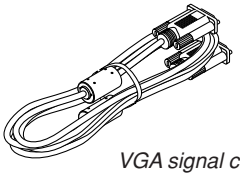
Batteries (AA x 2)



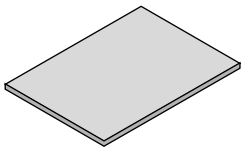
Remote Cable
(7N520019)



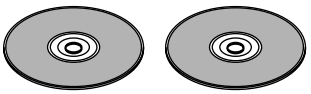
Power cable



VGA signal cable



• *Operation Guide*



CD-ROM
User's manual and User Supportware 3

• *Security sticker*

• *PC card lock (24F42201)*



• *Anti-theft screw for lens x 1*
(24V00841)

❷ Introduction to the Projector

This section introduces you to the projector and describes key features and controls.

Congratulations on Your Purchase of the Projector

The is a sophisticated XGA projector that produces an enhanced display. With the 8806/8808 you will be able to project images up to 500" (measured diagonally). Enjoy crisp and sharp large screen display from your PC, workstation or Macintosh computer, DVD player, VCR, satellite hookup, HDTV source,) and images from your digital camera PC Card, compact flash memory or USB storage device. The 8806/8808 provides for enhanced security options to help deter projector theft and provides for full projector control through the PC control port (D-Sub 9 Pin) and LAN support. With input and output flexibility, long lamp life and a full function remote, the 8806/8808 lets you enjoy larger than life viewing from a compact and easy to setup and use projector.

Features you'll enjoy :

- **LCD projector with high resolution and high brightness**

 High resolution display - up to UXGA compatible, XGA native resolution.

- **Extensive optional lens**

 One standard lens and five types of optional lenses are available

- **Lens shift mechanism offers installation flexibility**

 Manual lens shift that can be adjusted by turning dials on the top of the projector

- **Direct Power Off & Auto Start**

 The projector has a feature called "Direct Power Off". This feature allows the projector to be turned off (even when projecting an image) using a power strip equipped with a switch and a breaker.

 NOTE: Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.
 Also, the power cable can be removed immediately after turning off the projector.

 Auto Start eliminates the need to always use the POWER (ON/STANDBY) button on the remote control or projector cabinet.

- **Integrated RJ-45 connector for wired networking capability and wireless networking capable**

 Present from anywhere in the room when using as a wireless LAN projector and software contained on the supplied User Supportware 3 CD-ROM, no physical signal cable connection to a PC is required.
 * The NEC optional wireless LAN card is required (NWL-100* See page 89).

- **A variety of input ports and a comprehensive array of system control interfaces**

 This projector supports input signals including BNC, DVI-D, analogue RGB, component, S-video, and composite.

- **Wall Color Correction**

 Built-in Wall Color Correction presets provide for adaptive color correction when projecting onto non-white screen material (or a wall).

- **Six picture preset modes for user adjustable picture and color settings**

 Each picture preset mode can be customized and memorized according to your preference.

- **Preventing unauthorized use of the projector**

 Enhanced smart security settings for password protection, cabinet control panel lock, menu lock and PC card protection key to help prevent unauthorized access, adjustments and theft deterrence.

- Free downloadable Software Geometric Correction Tool 3.0.

 Corrects the geometry of an image projected onto a cylindrical, spherical or corner screen via serial connection.

 For additional information visit:

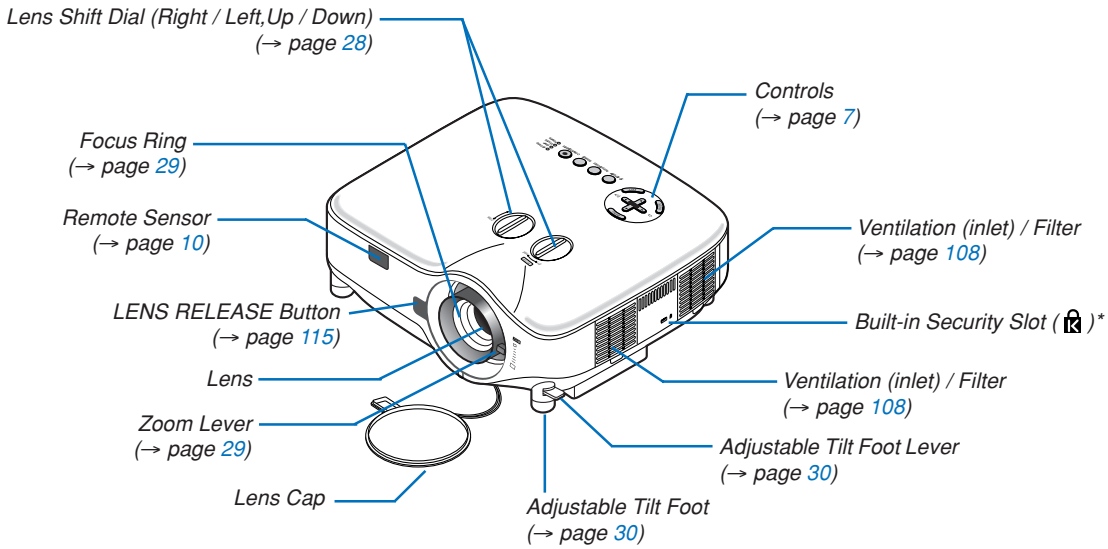
 US : http://www.dukcorp.com/av

About this user's manual

The fastest way to get started is to take your time and do everything right the first time. Take a few minutes now to review the user's manual. This may save you time later on. At the beginning of each section of the manual you'll find an overview. If the section doesn't apply, you can skip it.

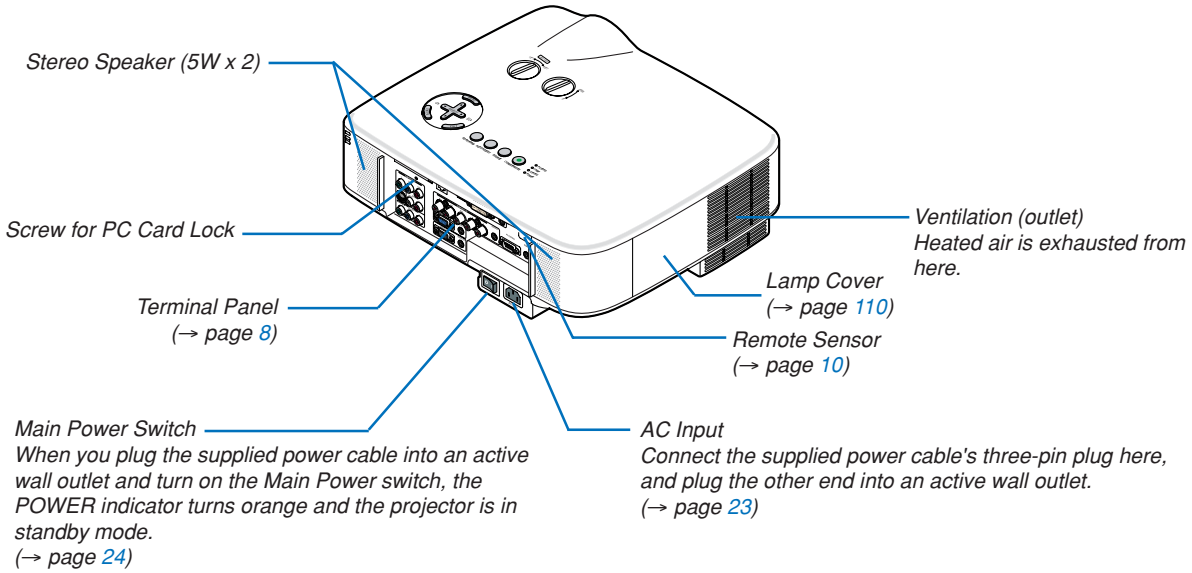
❸ Part Names of the Projector

Front/Top

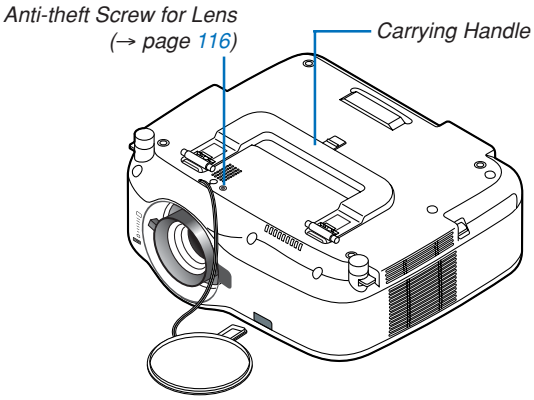


* This security slot supports the MicroSaver® Security System. MicroSaver® is a registered trademark of Kensington Microware Inc. The logo is trademarked and owned by Kensington Microware Inc.

Rear



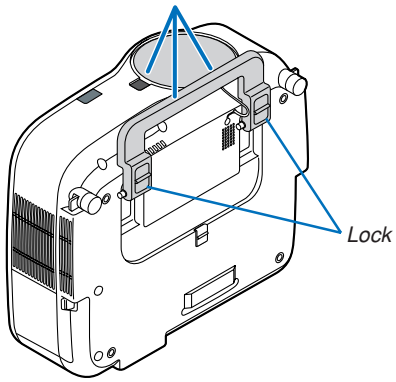
Bottom



Carrying the Projector

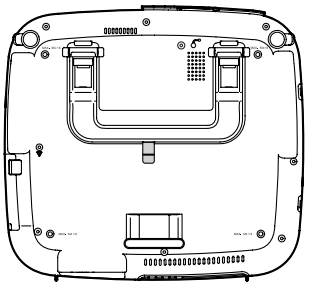
Always carry your projector by the handle.
Ensure that the power cable and any other cables connecting to video sources are disconnected before moving the projector.
When moving the projector or when it is not in use, cover the lens with the lens cap.

NOTE: To stand the projector on its end, do so by holding the cabinet, not by holding the carrying handle. Doing so can cause damage to the carrying handle.

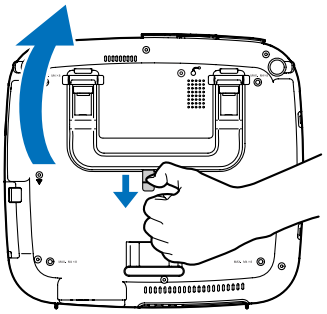


To lock the carrying handle

1. Carefully place the projector on its end.

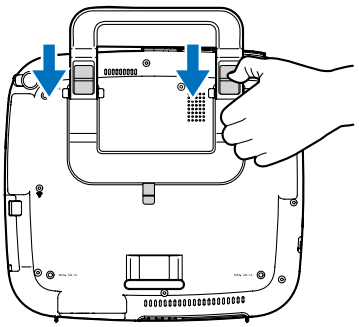


2. Pull up the carrying handle with the catch pressed down.

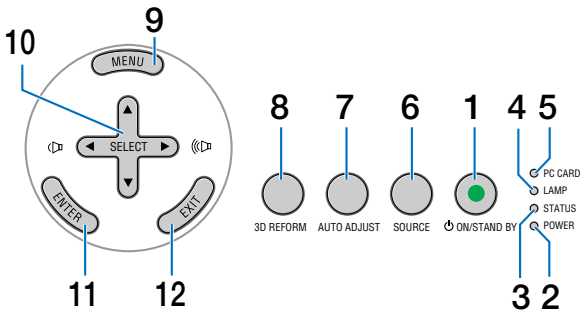


3. Press down the left and right locks to set the carrying handle in place.

- To place back the carrying handle, press up the left and right locks and pull down the carryng handle.



Top Features

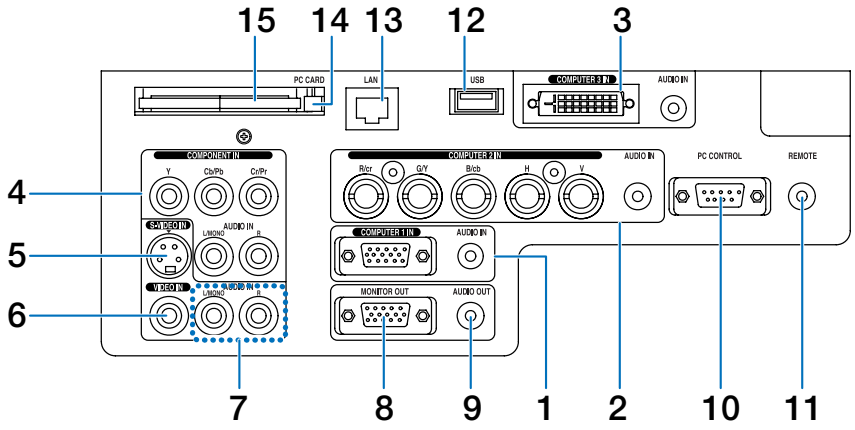


1. **POWER Button (ON / STAND BY) (→ page 24, 35)**

 NOTE: To turn on the projector, press and hold this button for a minimum of two seconds. To turn off the projector, press this button twice.

2. **POWER Indicator (⏻) (→ page 24, 35, 117)**
3. **STATUS Indicator (→ page 117)**
4. **LAMP Indicator (→ page 110, 117)**
5. **PC CARD Access Indicator (→ page 21, 22)**
6. **SOURCE Button**
7. **AUTO ADJUST Button (→ page 33)**
8. **3D REFORM Button (→ page 31, 41)**
9. **MENU Button**
10. **SELECT ▲▼◀▶ / Volume Buttons**
11. **ENTER Button**
12. **EXIT Button**

Terminal Panel Features



The actual appearance of the terminal panel may differ slightly from that shown in the drawing, but this does not affect the projector's performance.

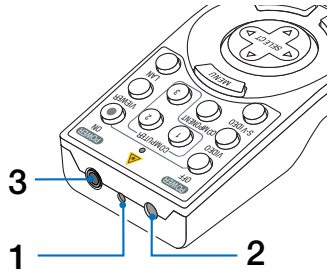
1. **COMPUTER 1 IN/Component Connector (Mini D-Sub 15 Pin) (→page 13, 15)**
 AUDIO IN (Stereo Mini Jack) (→page 13, 14, 16)
2. **COMPUTER 2 IN/Component (R/cr, G/V, B/cb, H, V) Connectors (BNC x 5) (→page 13)**
 AUDIO IN (Stereo Mini Jack) (→page 13)
3. **COMPUTER 3 IN Connector (DVI-D 24 Pin) (HDCP compatible) (→page 14)**
 AUDIO IN (Stereo Mini Jack) (→page 14)
4. **COMPONENT IN (Y, Cb/Pb, Cr/Pr) Connectors (RCA) (→page 17)**
 AUDIO L/MONO, R (RCA) (→page 17)
5. **S-VIDEO IN Connector (Mini DIN 4 Pin) (→page 18)**
6. **VIDEO IN Connector (RCA) (→page 18)**
7. **VIDEO/S-VIDEO AUDIO L/MONO, R (RCA) (→page 18)**
8. **MONITOR OUT Connector (Mini D-Sub 15 Pin) (→page 16)**
9. **AUDIO OUT (Stereo Mini Jack) (→page 16)**
10. **PC CONTROL Port (D-Sub 9 Pin) (→page 127, 128)**
 Use this port to connect your PC or control system to control your projector via a serial cable. This enables you to control the projector using serial communication protocol. A commercially available RS232C cross cable is required to use this port. You can also control the projector by using PC Control Utility 3.0 contained on the supplied User Supportware 3 CD-ROM. To do so you must first have PC Control Utility 3.0 installed on your PC. If you are writing your own program, typical PC control codes are on page 127.
11. **Remote Jack (Stereo Mini Jack) (→page 11)**

NOTE: Connecting the remote cable to the REMOTE mini jack on the terminal panel will make the wireless operation unavailable.

12. **USB Port (Type A) (→page 38, 59)**
13. **LAN Port (RJ-45) (→page 19, 89)**
14. **PC CARD Eject Button (→page 22)**
15. **PC CARD Slot (→page 21)**

NOTE: A dummy card is inserted into each slot at the time of shipment. First remove the dummy cards before use.

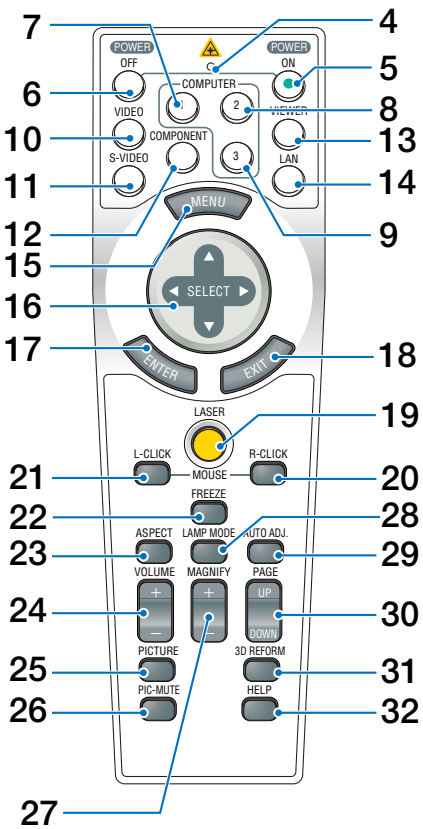
❹ Part Names of the Remote Control



1. **Laser Pointer**

> ⚠ **CAUTION:**
> * Do not look into the laser pointer while it is on.
> * Do not point the laser beam at a person.

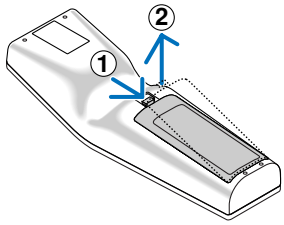
2. **Infrared Transmitter**
3. **Remote jack (→ page 11)**



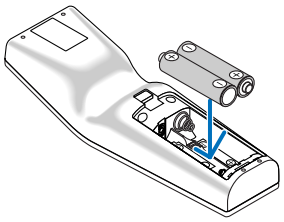
4. **LED**
 Flashes when any button is pressed.
5. **POWER ON Button (→ page 24)**
 NOTE: To turn on the projector, press and hold the POWER ON button for a minimum of two seconds.
6. **POWER OFF Button (→ page 35)**
 NOTE: To turn off the projector, press the POWER OFF button twice.
7. **COMPUTER 1 Button (→ page 26)**
8. **COMPUTER 2 Button (→ page 26)**
9. **COMPUTER 3 Button (→ page 26)**
10. **VIDEO Button (→ page 26)**
11. **S-VIDEO Button (→ page 26)**
12. **COMPONENT Button (→ page 26)**
13. **VIEWER Button (→ page 26, 58)**
14. **LAN Button (→ page 26)**
15. **MENU Button**
16. **SELECT ▲▼◀▶ Button**
17. **ENTER Button**
18. **EXIT Button**
19. **LASER Button (→ page 34)**
20. **MOUSE R-CLICK Button (→ page 40)**
21. **MOUSE L-CLICK Button (→ page 40)**
22. **FREEZE Button (→ page 36)**
23. **ASPECT Button (→ page 77)**
24. **VOLUME +/– Buttons (→ page 33)**
25. **PICTURE Button (→ page 72, 74)**
26. **PIC-MUTE Button (→ page 36)**
27. **MAGNIFY +/– Buttons (→ page 36)**
28. **LAMP MODE Button (→ page 36)**
29. **AUTO ADJ. Button (→ page 33)**
30. **PAGE UP/DOWN Buttons (→ page 40)**
31. **3D REFORM Button (→ page 31, 41)**
32. **HELP Button (→ page 37)**

Battery Installation

1 Press the catch and remove the battery cover.

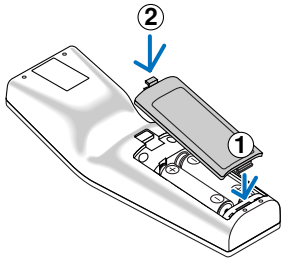


2 Install new ones (AA). Ensure that you have the batteries' polarity (+/–) aligned correctly.

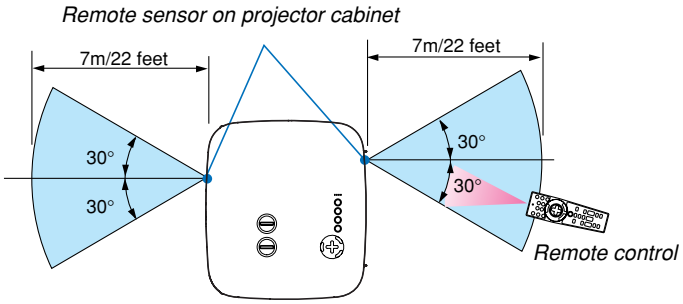


3 Slip the cover back over the batteries until it snaps into place.

NOTE: Do not mix different types of batteries or new and old batteries.



Operating Range for Wireless Remote Control



NOTE: Actual operating range may differ slightly from that shown in the drawing.

TIP: *You can determine which remote sensor on the projector is enabled in wireless mode. The options are: front, rear or both. (→ page 96)*

- The infrared signal operates by line-of-sight up to a distance of about 22 feet/7 m and within a 60-degree angle of the remote sensor on the projector cabinet.
- The projector will not respond if there are objects between the remote control and the sensor, or if strong light falls on the sensor.
 Weak batteries will also prevent the remote control from properly operating the projector.

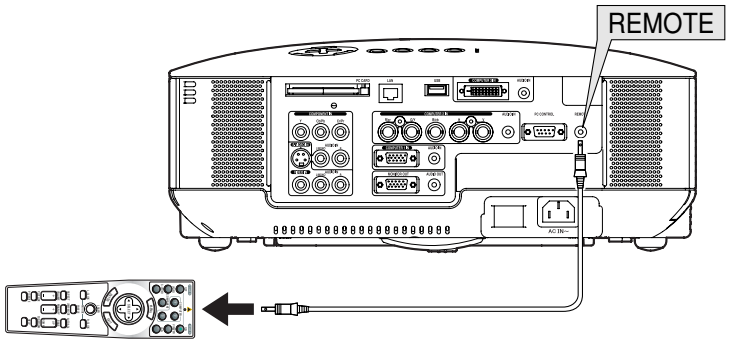
Remote Control Precautions

- Handle the remote control carefully.
- If the remote control gets wet, wipe it dry immediately.
- Avoid excessive heat and humidity.
- Do not heat, take apart, or throw batteries into fire.
- If you will not be using the remote control for a long time, remove the batteries.
- Ensure that you have the batteries' polarity (+/–) aligned correctly.
- Do not use new and old batteries together, or use different types of batteries together.
- Dispose of used batteries according to your local regulations.

Using the Remote Control in Wired Operation

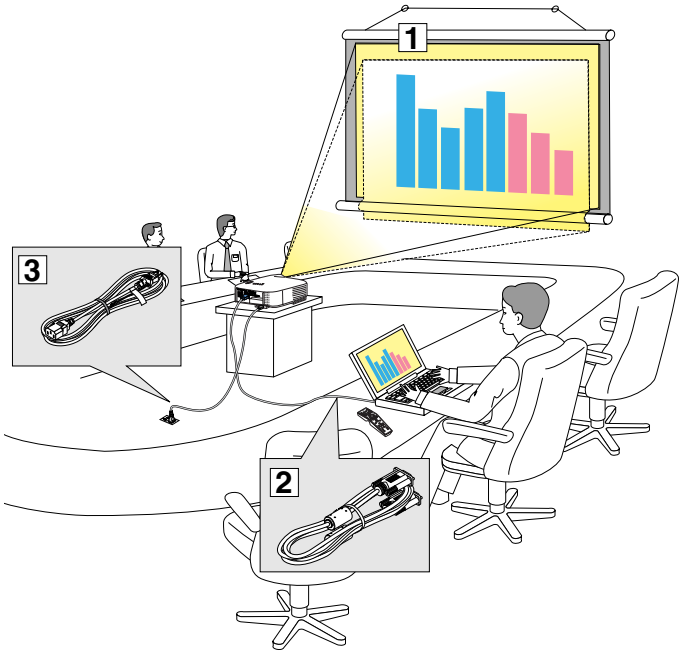
Connect one end of the supplied remote cable to the REMOTE mini jack and the other end to the remote jack on the remote control.

NOTE: Connecting the remote cable to the REMOTE mini jack on the terminal panel will make the wireless operation unavailable.



2. Installation and Connections

This section describes how to set up your projector and how to connect PCs, video and audio sources.



Your projector is simple to set up and use. But before you get started, you must first:

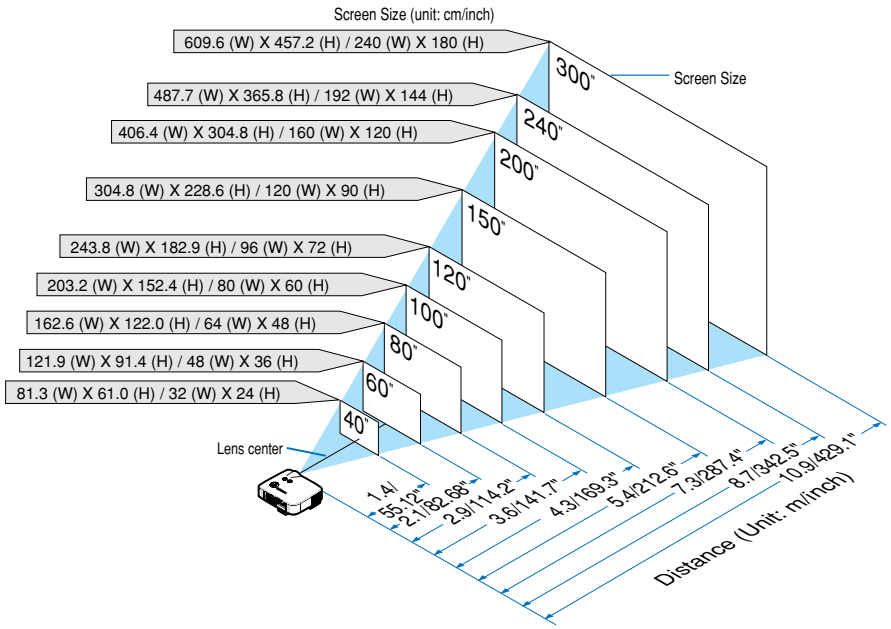
1. Set up a screen and the projector.
2. Connect your computer or video equipment to the projector. See pages 13 - 22.
3. Connect the supplied power cable. See page 23.

NOTE: Ensure that the power cable and any other cables are disconnected before moving the projector. When moving the projector or when it is not in use, cover the lens with the lens cap.

1 Setting Up the Screen and the Projector

The further your projector is from the screen or wall, the larger the image. The minimum size the image can be is approximately 30 inches (0.76 m) measured diagonally when the projector is roughly 41 inches (1.0 m) from the wall or screen. The largest the image can be is 500 inches (12.7 m) when the projector is about 718 inches (18.2 m) from the wall or screen. Use the drawing below as a guide.

Selecting a Location



TIP: *The screen sizes above are intermediate values between tele (minimum display area) and wide (maximum display area) when the standard lens is used. Image size can be adjusted with the zoom adjustment up to a maximum of 15%.*
For optional lenses, see page 113.

❷ Making Connections

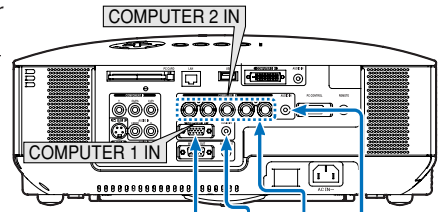
Connecting Your PC or Macintosh Computer

NOTE: When using with a notebook PC, be sure to connect the projector and notebook PC while the projector is in standby mode and before turning on the power to the notebook PC.
In most cases the output signal from the notebook PC is not turned on unless connected to the projector before being powered up.
** If the screen goes blank while using your remote control, it may be the result of the computer's screen-saver or power management software.*

Enabling the computer's external display

Displaying an image on the notebook PC's screen does not necessarily mean it outputs a signal to the projector. When using a PC compatible laptop, a combination of function keys will enable/disable the external display. Usually, the combination of the 'Fn" key along with one of the 12 function keys gets the external display to come on or off. For example, NEC laptops use Fn + F3, while Dell laptops use Fn + F8 key combinations to toggle through external display selections.

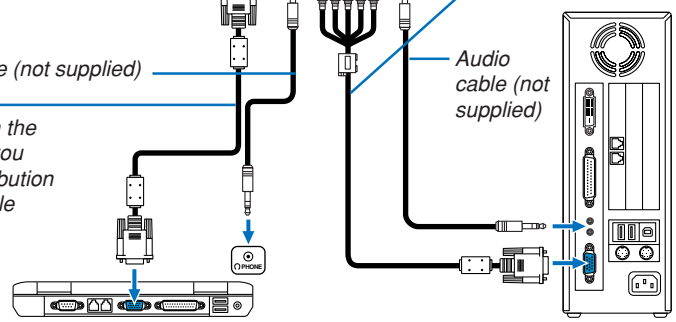
NOTE: The COMPUTER 1 IN connector supports Plug & Play (DDC2).



BNC X 5 cable (not supplied)

Audio cable (not supplied)

VGA signal cable (supplied)
To mini D-Sub 15-pin connector on the projector. It is recommended that you use a commercially available distribution amplifier if connecting a signal cable longer than the supplied one.



Audio cable (not supplied)

IBM VGA or Compatibles (Notebook type) or Macintosh (Notebook type)

NOTE: For older Macintosh, use a commercially available pin adapter (not supplied) to connect to your Mac's video port.

- First turn off the computer and the projector before making connections.
- Turn down the volume on the computer before connecting an audio cable the headphone jack of the computer. After connecting the computer to the projector, you can adjust the sound level on the computer and the projector to your preference.
- You are recommended to connect an audio cable to an audio out connector (mini jack type) if any.

NOTE: The 8806 / 8 808 is not compatible with video decoded outputs of either the NEC ISS-6020 and ISS-6010 switchers.

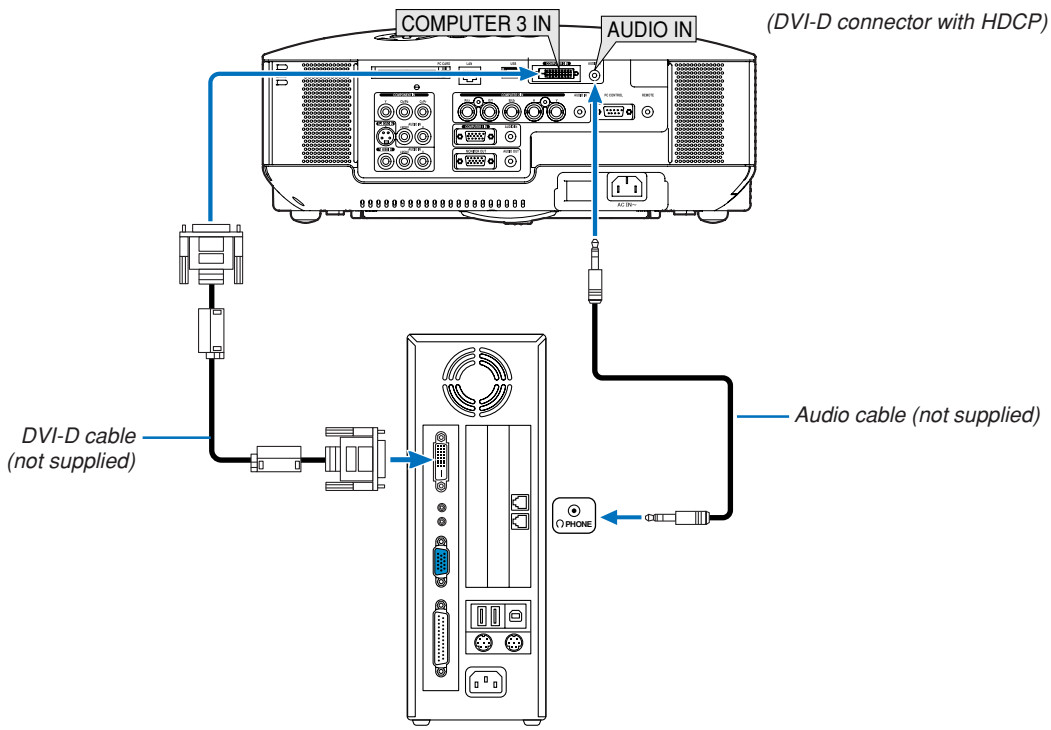
NOTE: An image may not be displayed correctly when a Video or S-Video source is played back via a commercially available scan converter.
This is because the projector will process a video signal as a computer signal at the default setting. In that case, do the following.
** When an image is displayed with the lower and upper black portion of the screen or a dark image is not displayed correctly:*
Project an image to fill the screen and then press the AUTO ADJ button on the remote control or the AUTO ADJUST button on the projector cabinet.
** When noise appears on the sides of the screen:*
Use the Overscan feature to display the image correctly.
Be sure to change the Overscan to 0% before pressing the AUTO ADJ or AUTO ADJUST button, otherwise an image may be displayed with its sides cut off.

When Viewing a DVI Digital Signal

To project a DVI digital signal, be sure to connect the PC and the projector using a DVI-D signal cable (not supplied) before turning on your PC or projector. Turn on the projector first and select DVI (DIGITAL) from the source menu before turning on your PC.
Failure to do so may not activate the digital output of the graphics card resulting in no picture being displayed. Should this happen, restart your PC.
Do not disconnect the DVI-D signal cable while the projector is running. If the signal cable has been disconnected and then re-connected, an image may not be correctly displayed. Should this happen, restart your PC.

NOTE:

- *Use a DVI-D cable compliant with DDWG (Digital Display Working Group) DVI (Digital Visual Interface) revision 1.0 standard. The DVI-D cable should be within 10 m (394") long.*
- *The DVI (DIGITAL) connector (COMPUTER 3) accepts VGA (640x480), SVGA (800x600), 1152x864, XGA (1024x768), SXGA (1280x1024 @ up to 60Hz) and SXGA+ (1400x1050 @ up to 60Hz).*

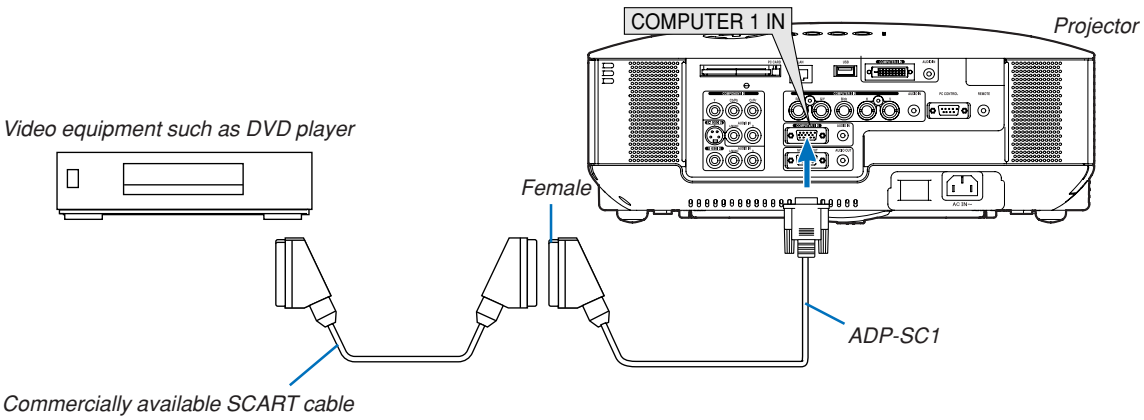


IBM VGA or Compatibles or Macintosh

What is HDCP/HDCP technology?

HDCP is an acronym for High-bandwidth Digital Content Protection. High bandwidth Digital Content Protection (HDCP) is a system for preventing illegal copying of video data sent over a Digital Visual Interface (DVI).
If you are unable to view material via the DVI input, this does not necessarily mean the projector is not functioning properly. With the implementation of HDCP, there may be cases in which certain content is protected with HDCP and might not be displayed due to the decision/intention of the HDCP community (Digital Content Protection, LLC).

To connect SCART output (RGB)



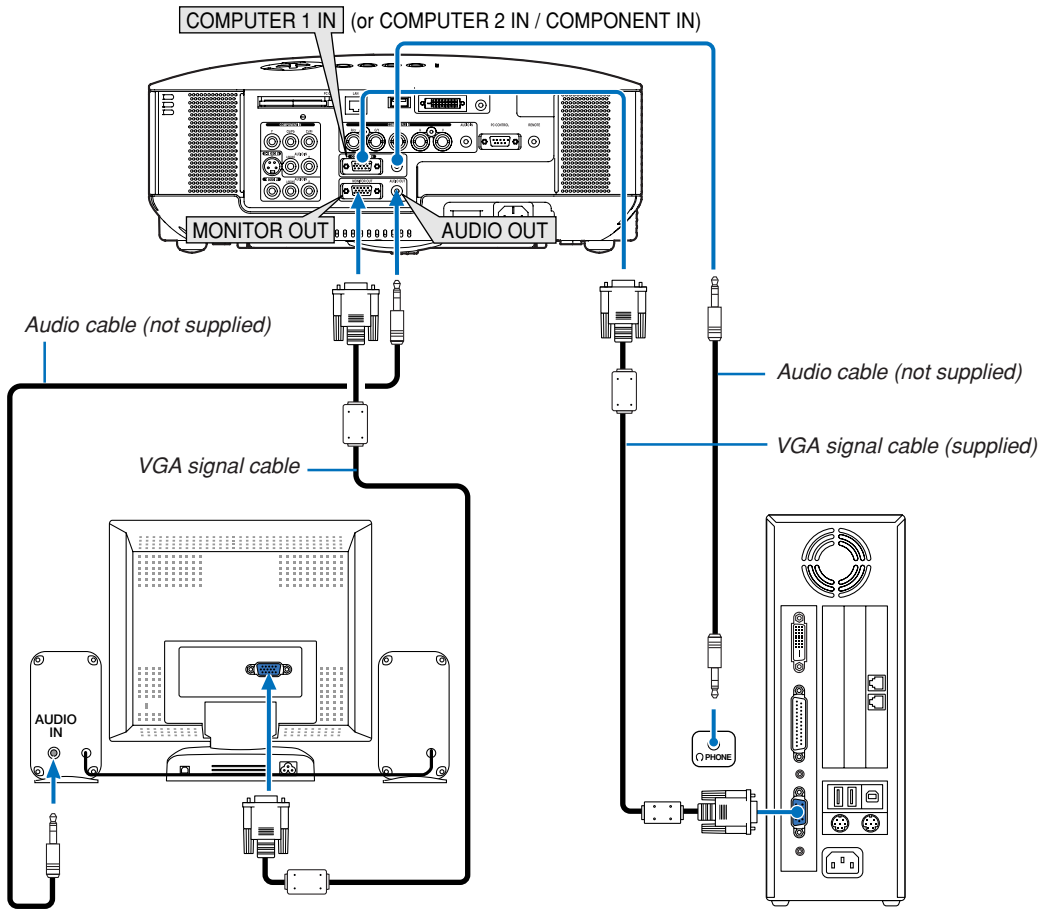
Before connections: An exclusive SCART adapter (ADP-SC1) and a commercially available SCART cable are required for this connection.

From the menu, select [Setup] → [Options] → [Signal Select] → [Computer 1] → [Scart].
SCART is a standard European audio-visual connector for TVs, VCRs and DVD players. It is also referred to as Euro-connector.

NOTE: Audio signal is not available for this connection.

TIP: *The ADP-SC1 SCART adapter is obtainable from you r dealer in Europe. Contact your dealer in Europe for more information.*

Connecting an External Monitor

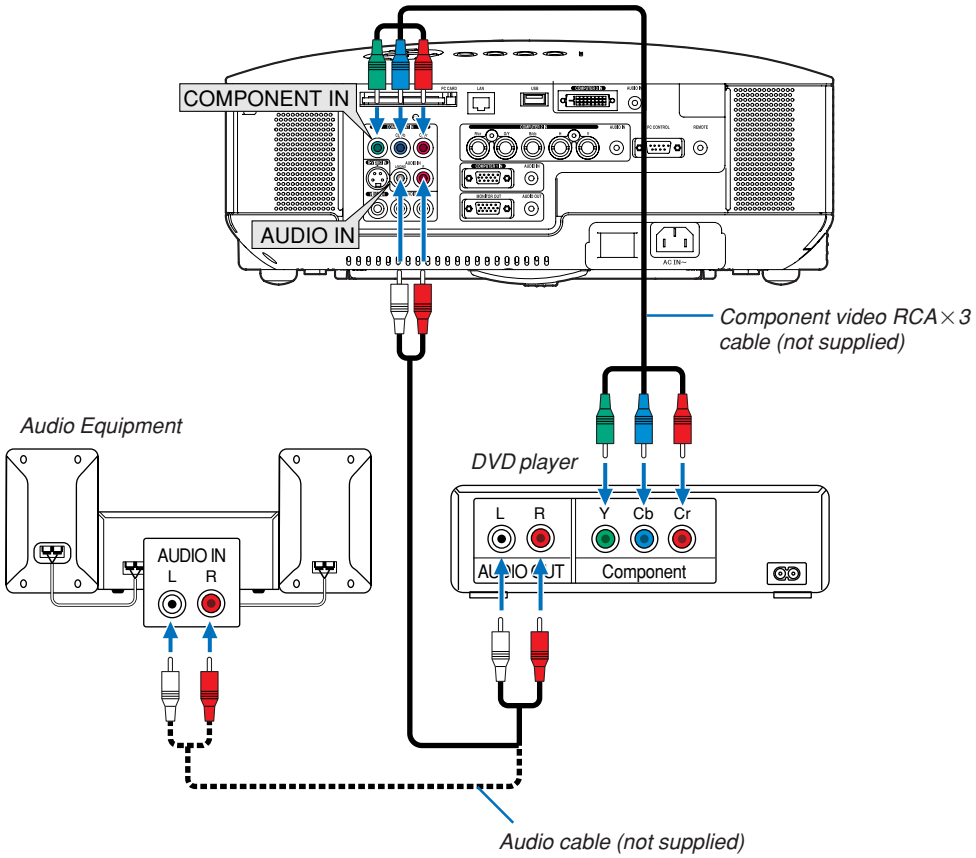


You can connect a separate, external monitor to your projector to simultaneously view on a monitor the RGB analog or component image you're projecting.

NOTE:

- *Daisy chain connection is not possible.*
- *The MONITOR OUT connector will output no video signal (Digital signal) from the COMPUTER 3 IN connector.*
- *When audio equipment is connected, the projector speaker is disabled.*

Connecting Your DVD Player with Component Output

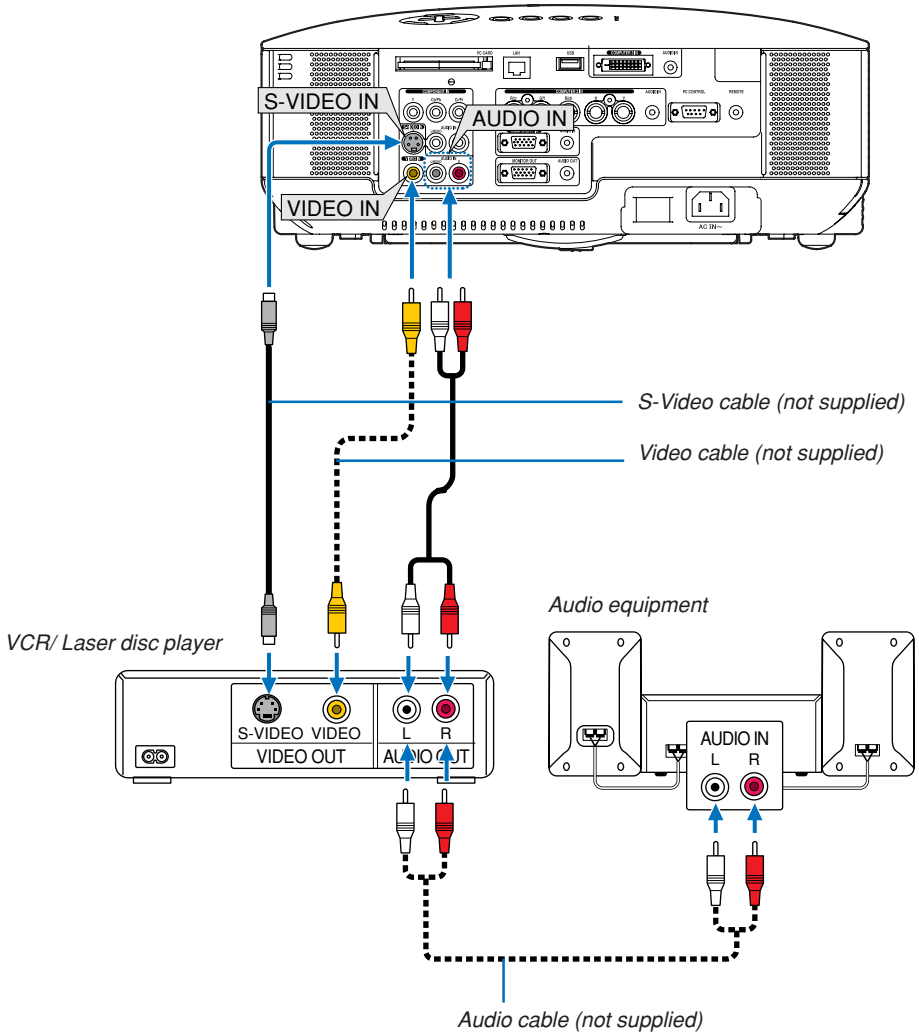


TIP: *A component signal will be automatically displayed. If not, from the menu, select [Setup] → [Options] → [Signal Select] → [Computer 1 (or 2)] → [Component].*

- When connecting to the COMPUTER 2 IN, use a commercially available RCA (female)-to-BNC(male) adapter.

NOTE: Refer to your DVD player's owner's manual for more information about your DVD player's video output requirements.

Connecting Your VCR or Laser Disc Player



TIP: *You can connect a video cable to the "Y" connector of the COMPONENT connectors to display a VCR source. To do so, from the menu, select [Setup] → [Options] → [Signal Select] → [Component] → [Video].*

NOTE: Refer to your VCR or laser disc player owner's manual for more information about your equipment's video output requirements.

NOTE: An image may not be displayed correctly when a Video or S-Video source is played back in fast-forward or fast-rewind via a scan converter.

Connecting to a Network

The 8806/8808 comes standard with a LAN port (RJ-45) which provides a LAN connection using a LAN cable. Placing the optional wireless LAN card (NWL-100*) in the PC card slot of the projector also provides a wireless LAN connection. To use a LAN connection, you are required to assign an IP address to the projector. For setting the LAN mode, see page 89 (From the menu, select [Setup] → [Installation] → [LAN Mode])

With the LAN connection, two features are available: Projector control and Picture transmission.

Projector control feature

With the wired or wireless LAN connection, you can control (power on/off, input select, etc.) and receive information from the projector over the network using a computer. The following two methods are available:

* Using the HTTP Server feature on the projector. (→ page 51)
* Using PC Control Utility 3.0 from the supplied User Supportware 3 CD-ROM.

Picture transmission feature

With the wired or wireless LAN connection, you can send images and slides from a personal computer to the projector which then can be projected on the screen. The following two methods are available:

* Using Image Express Utility 2.0 from the supplied User Supportware 3 CD-ROM.
* Using Ulead Photo Explorer 8.0 from the supplied User Supportware 3 CD-ROM.

With the USB mouse connected to the projector, you can also operate the desktop screen on your Windows PC connected to the LAN or the wireless LAN.

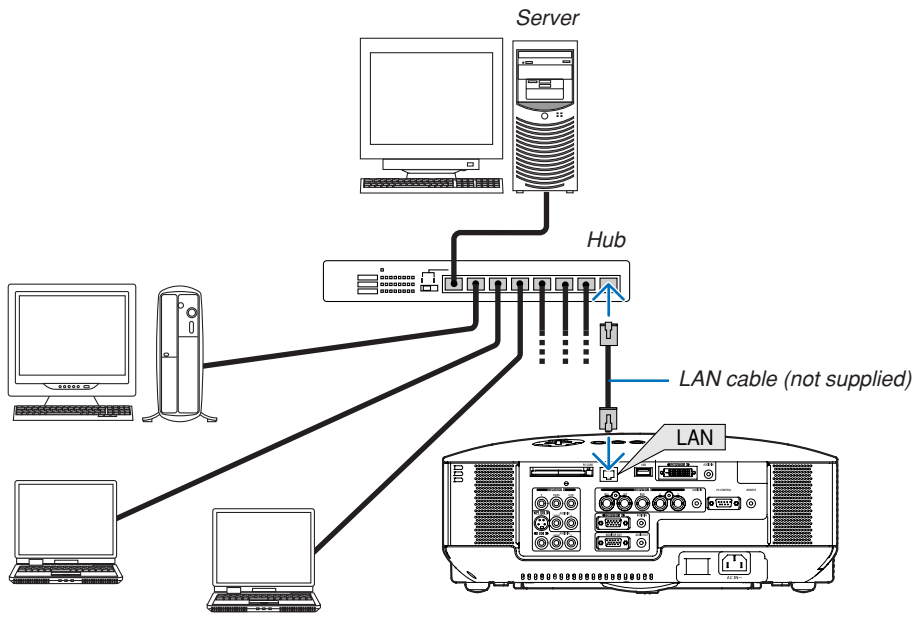
* Using Desktop Control Utility 1.0 from the supplied User Supportware 3 CD-ROM.

NOTE: Use a wireless LAN card conforming to the Wi-Fi standard for your personal computer.

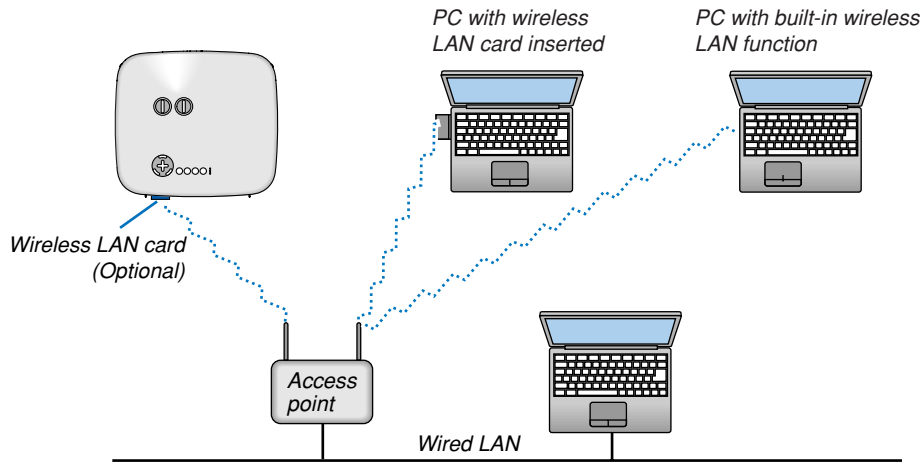
TIP: *Five Windows software programs (Image Express Utility 2.0, Desktop Control Utility 1.0, Ulead Photo Explorer 8.0, Viewer PPT Converter and PC Control Utility 3.0) and a Macintosh software program (Image Express Utility 2 for Mac OS X) are contained on the supplied Projector User Supportware 3 CD-ROM. For their functions and operations, see the user's guides (PDF) contained on the same CD-ROM.*

Example of LAN connection

(A) Example of wired LAN connection

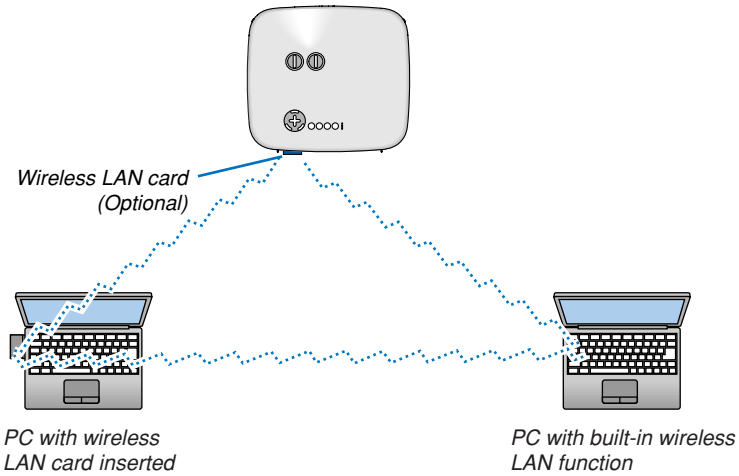


(B) Example of wireless LAN connection
(Network Type → Mode: Infrastructure)



To make connection with a wired LAN via an access point, you need to select the Infrastructure mode.
From the menu, select [Setup] → [Installation] → [LAN Mode] → [PC Card] → [Advanced] → [Network Type] → [Mode] → [Infrastructure].

(C) Example of wireless LAN connection (Network Type → Mode: 802.11 Ad Hoc)



To enable direct communication (i.e., peer-to-peer) between personal computers and projectors, you need to select the 802.11 Ad Hoc mode.
From the menu, select [Setup] → [Installation] → [LAN Mode] → [PC Card] → [Advanced] → [Network Type] → [Mode] → [802.11 Ad Hoc].

The 802.11 Ad Hoc mode complies with IEEE802.11 standard.

When in Ad Hoc mode, only 802.11b is available for communication method.
Data transmission speed in Ad Hoc mode is limited up to 11Mbps.

Inserting and Removing a PC Card

To insert the optional wireless LAN card or a PC memory card (also referred to as PC card in this manual), follow the steps below.

CAUTION:

* Direction for Inserting the PC Card

 The PC card has a top and bottom and must be inserted into the PC card slot in a specific direction. It cannot be inserted backwards or upside-down.

 Attempting to force it into the slot in the wrong direction may break the internal pin and damage the card slot. Refer to the PC card's operating instructions for the proper direction of insertion.
* Back up your PC card's data in case it will need to be restored.
* To prevent electrostatic discharge damage to the wireless LAN card, wear an anti-static wrist strap. If no wrist strap is available, ground yourself by touching metal such as a door knob.
* Always insert or remove the wireless LAN card when the main power is turned off. Failure to do so may cause projector malfunction or damage to the wireless LAN card. If the projector will not work correctly, turn off the projector, wait 30 seconds, and turn it back on.

A dummy card is inserted into the PC CARD slot at the time of shipment. First remove the dummy cards before use.

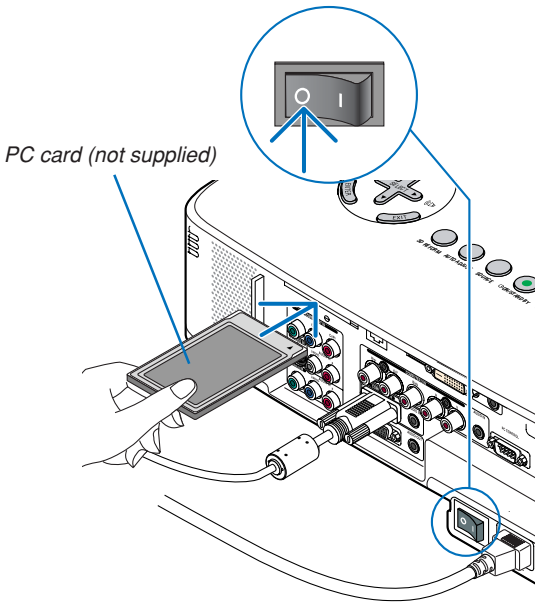
Inserting the PC Card

1. ***Make sure the main power is off before inserting the PC card. (This step is needed only when the wireless LAN card being inserted into the projector's PC CARD slot)***

2. ***Hold the PC card horizontally and insert it slowly into the PC card slot with its top facing up.***

The eject button pops out once the PC card is fully inserted. Check that the PC card is fully inserted.

NOTE: Do not try to force the PC card into the slot or you may bend the pins inside the slot.



Removing the PC Card

1. ***Make sure that the PC CARD access indicator is not lit. (This step is needed only when the PC memory card being inserted into the projector's PC CARD slot.)***

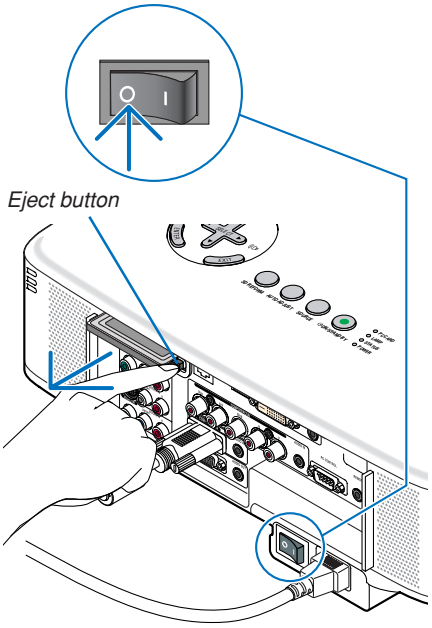
 NOTE: The PC CARD access indicator lights while its data is being accessed.

2. ***To remove the wireless LAN card, make sure that the main power is off. (This step is needed only when the wireless LAN card being inserted into the projector's PC CARD slot)***

3. ***Press the eject button slowly. The eject button pops out a little.***

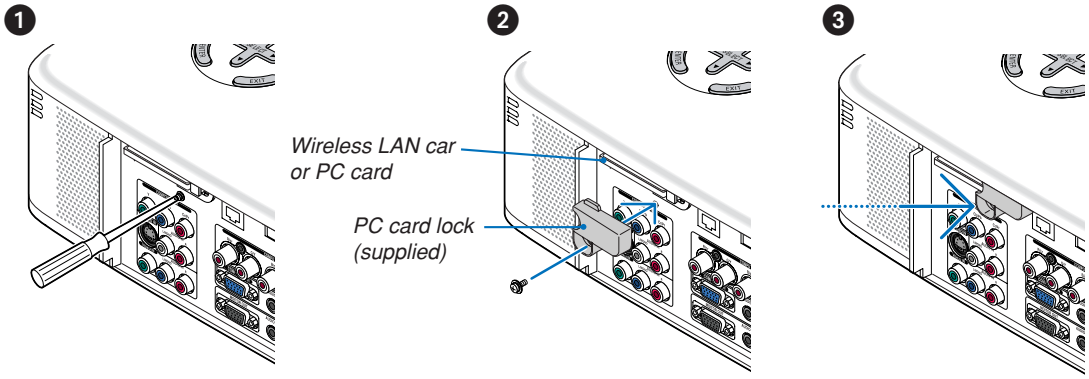
4. ***Press the eject button slowly again.***

5. ***Grasp the edges of the PC card and pull it out.***



PC Card Lock

The supplied PC card lock prevents a PC card or an optional wireless LAN card from being ejected during use. The screw for the PC card lock is mounted under the PC card slot on the rear side of the projector. To attach the PC card lock to the projector, first remove the screw and use it.



NOTE: Some PC cards cannot be used based on their size and shape.

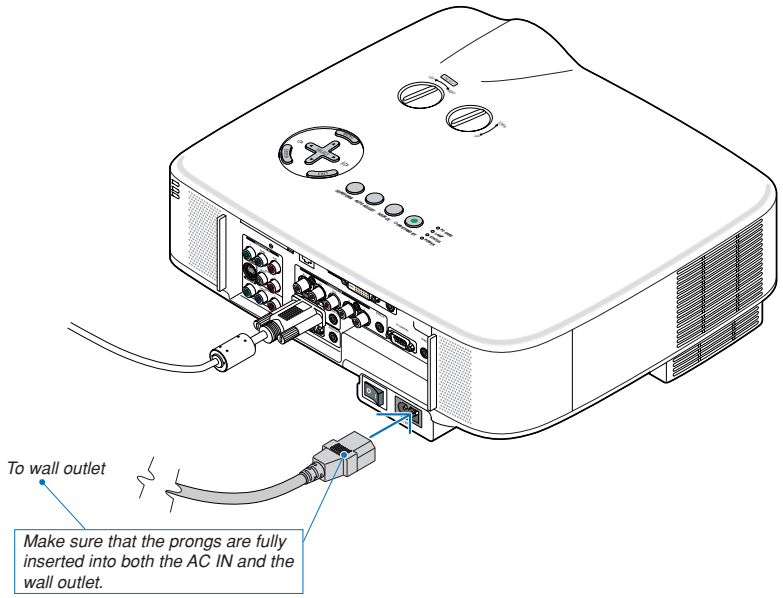
PC Card Type

The PC Card slot accepts PCMCIA Type II only.

NOTE: The projector does not support NTFS formatted flash memory card or USB memory device.
Be sure to use a flash memory card or USB memory device formatted with the FAT32, FAT16 or FAT file system.
To format your flash memory card or USB memory device in your computer, refer to the document or help file that comes with your Windows operating systems.

Connecting the Supplied Power Cable

Connect the supplied power cable to the projector.
First connect the supplied power cable's three-pin plug to the AC IN of the projector, and then connect the other plug of the supplied power cable in the wall outlet.



About Direct Power Off
The projector has a feature called "Direct Power Off". This feature allows the projector to be turned off (even when projecting an image) using a power strip equipped with a switch and a breaker.

NOTE: Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.

⚠ CAUTION:
Do not try to touch the ventilation outlet on the left front (when seen from the front) as it can become heated white the projector is turned on and immediately after the projector is turned off.

⚠ CAUTION:
Do not unplug the power cable from the wall outlet or projector when the project is powered on. Doing so can cause damage to the AC IN connector of the projector and (or) the prong plug of the power cable.

TIP: *To turn off the AC power supply when the projector is powered on, use a power strip equipped with a switch and a breaker.*

TIP: *The projector can be unplugged during its cool down period after it is turned off.*

3. Projecting an Image (Basic Operation)

This section describes how to turn on the projector and to project a picture onto the screen.

❶ Turning on the Projector

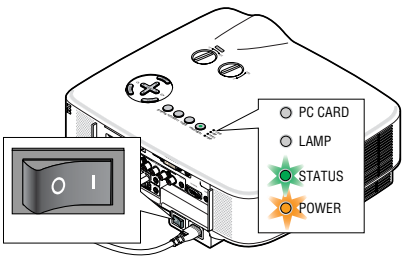
NOTE:
- *The projector has two power switches: a main power switch and a POWER (ON/STAND BY) button (POWER ON and OFF on the remote control).*
- *When plugging in or unplugging the supplied power cable, make sure that the main power switch is pushed to the off (○) position. Failure to do so may cause damage to the projector.*
- *The projector has a feature to prevent itself from being used by unauthorized individuals. To use this feature, register a keyword. (→ page 45)*

1. Remove the lens cap.

- Do not try to remove the lens cap by pulling on the string. Doing so can cause damage.

2. To turn on the main power to the projector, press the Main Power switch to the on position (I).

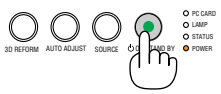
- The projector will go into standby mode. When in standby mode, the POWER indicator will light orange and the STATUS indicator will light green.

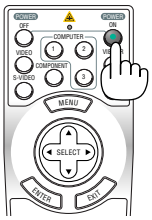


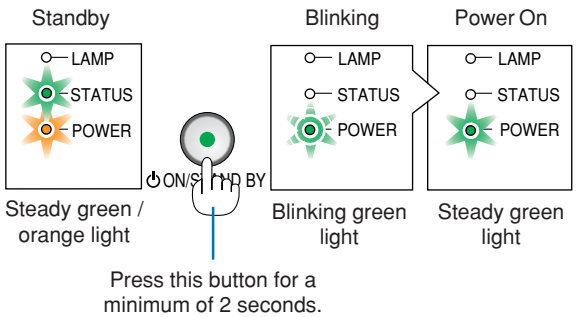
3. After making sure that the projector is in standby mode, press the POWER (ON/STAND BY) or POWER (ON) button for a minimum of 2 seconds when the STATUS indicator goes off and the POWER indicator starts blinking.

When the POWER indicator turns a steady green, and the projector is ready to use.

- After you turn on your projector, ensure that the computer or video source is turned on and that your lens cap is removed.







(→ page 117)

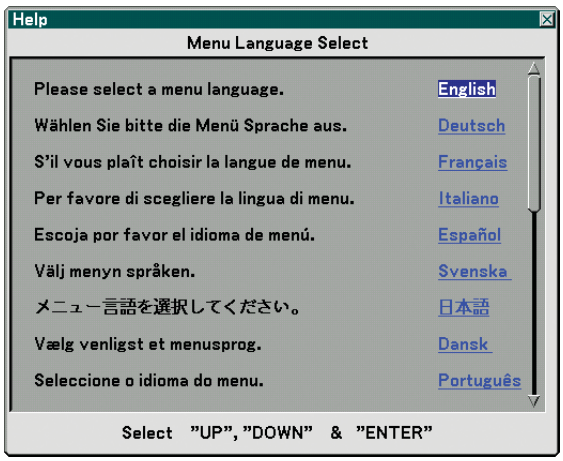
NOTE: When no signal is available, a blue, black or logo screen is displayed.

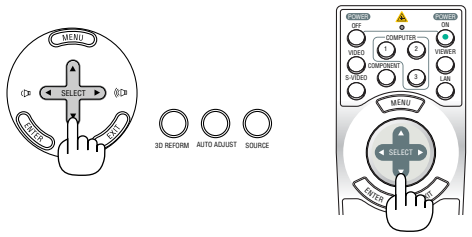
Note on Startup screen (Menu Language Select screen)

When you first turn on the projector, you will get the Startup menu. This menu gives you the opportunity to select one of the 21 menu languages.

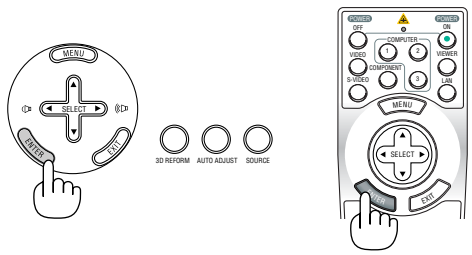
To select a menu language, follow these steps:

1. ***Use the SELECT▼ button to select one of the 21 languages for the menu.***

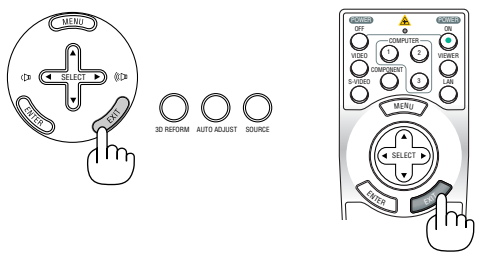




2. ***Press the ENTER button to execute the selection.***



3. ***To close the menu, press the EXIT button.***



After this has been done, you can proceed to the menu operation.
If you want, you can select the menu language later. (→ [Language] on page 81)

NOTE:

- *The projector cannot be turned off for 60 seconds after the lamp is turned on and while the POWER indicator is blinking green.*
- *If you turn on the projector immediately after the lamp is turned off or when the ambient temperature is high, the cooling fans will run for a moment and then you will get an image on the screen.*
- *Immediately after turning on the projector, screen flicker may occur. This is normal. Wait 3 to 5 minutes until the lamp lighting is stabilized.*

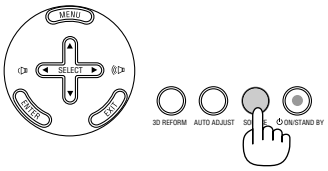
- When the Lamp mode is set to Eco, the Lamp indicator will light green.
- If one of the following things happens, the projector will not turn on.
 - If the internal temperature of the projector is too high, the projector detects abnormal high temperature. In this condition the projector will not turn on to protect the internal system. If this happens, wait for the projector's internal components to cool down.
 - When the lamp reaches its end of usable life, the projector will not turn on. If this happens, replace the lamp. (→ page 110)
 - If the lamp fails to light, and if the STATUS indicator flashes on and off in a cycle of six times, wait a full minute and then turn on the power.

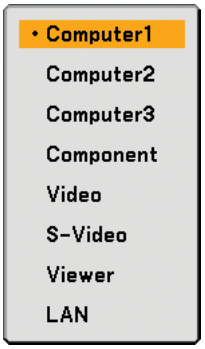
❷ Selecting a Source

Selecting the computer or video source

Selecting from Source List

Press and quickly release the SOURCE button on the projector cabinet to display the Source list. Each time the SOURCE button is pressed, the input source will change as follows: “Computer 1/2/3”, “Component”, “Video” (VCR or laser disc player), “S-Video”, “Viewer” (slides on a PC card) or “LAN” (LAN port [RJ-45] or wireless LAN card).
To display the selected source, press the ENTER button.



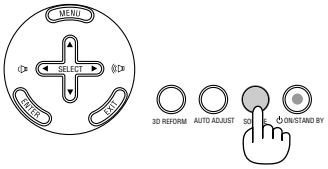


Detecting the Signal Automatically

Press and hold the SOURCE button for a minimum of 1 second, the projector will search for the next available input source. Each time you press and hold the SOURCE button for a minimum of 1 second, the input source will change as follows:

Computer1 → Computer2 → Computer3 → Component → Video → S-Video → Viewer → Computer1 → ...

If no input signal is present, the input will be skipped. When the input source you wish to project is displayed, release the button.



Using the Remote Control

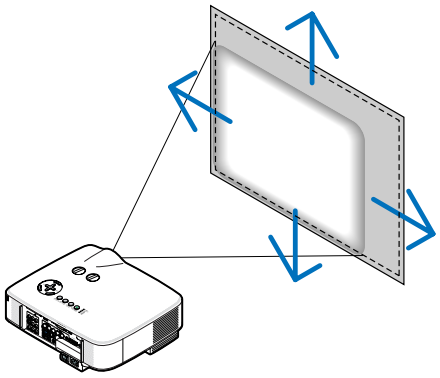
Press any one of the COMPUTER 1/2/3, COMPONENT, VIDEO, S-VIDEO, VIEWER or LAN buttons.



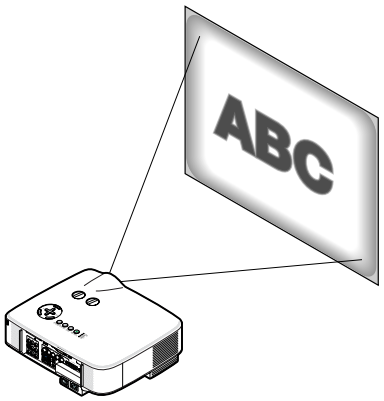
❸ Adjusting the Picture Size and Position

Use the lens shift dials, the adjustable tilt foot levers, the zoom lever or the focus ring to adjust the picture size and position.

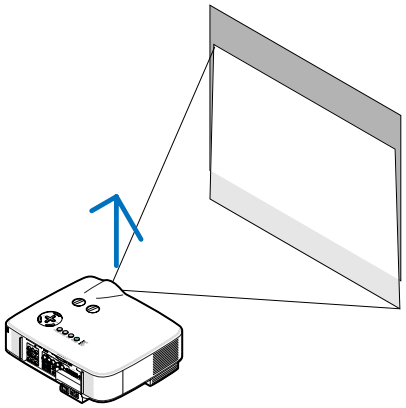
Adjusting the position of a projected image
[Lens shift]



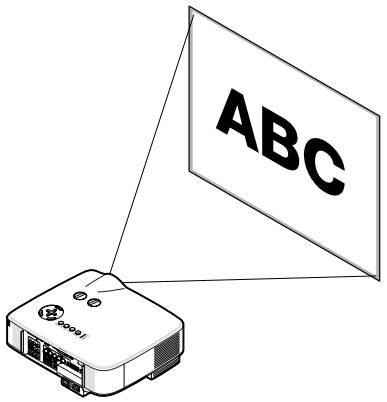
Adjusting the focus
[Focus ring]



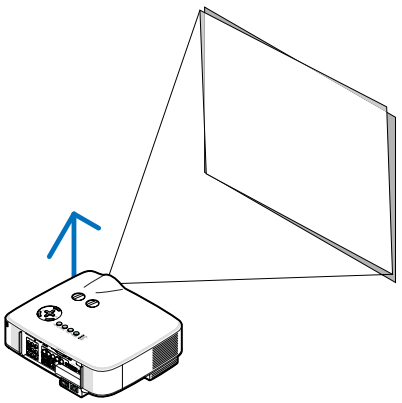
Adjusting the throw angle (the height of an image)
[Tilt foot] *1



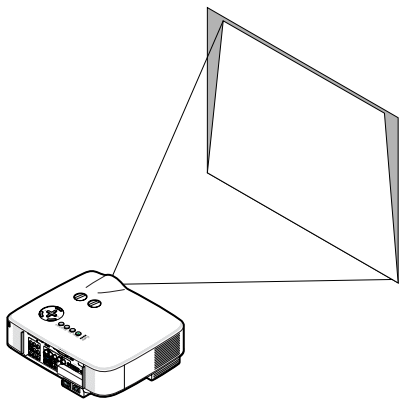
Finely adjusting the size of an image
[Zoom lever]



Adjusting the left and right tilt of an image
[Tilt foot]



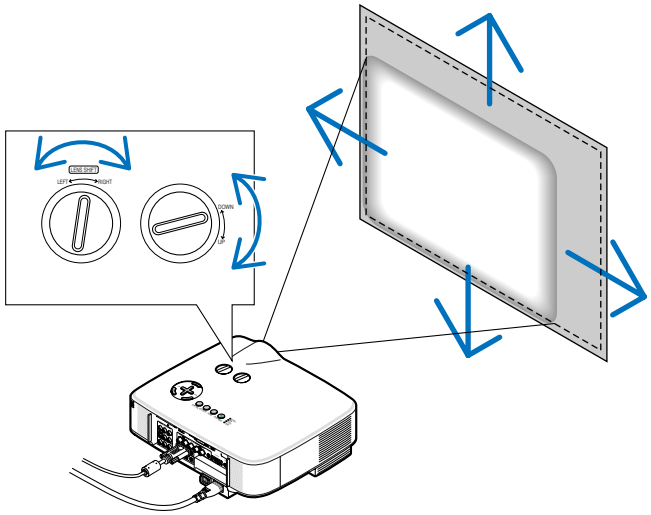
Adjusting the keystone correction
[Keystone] *2



*NOTE*1: Adjust the throw angle (the height of an image) when the image position is higher than the lens shift adjustable range.*
*NOTE*2: See "❹ Correcting Keystone Distortion" on page 31 for Keystone.*
** In the above drawings, cables are omitted for clarity.*

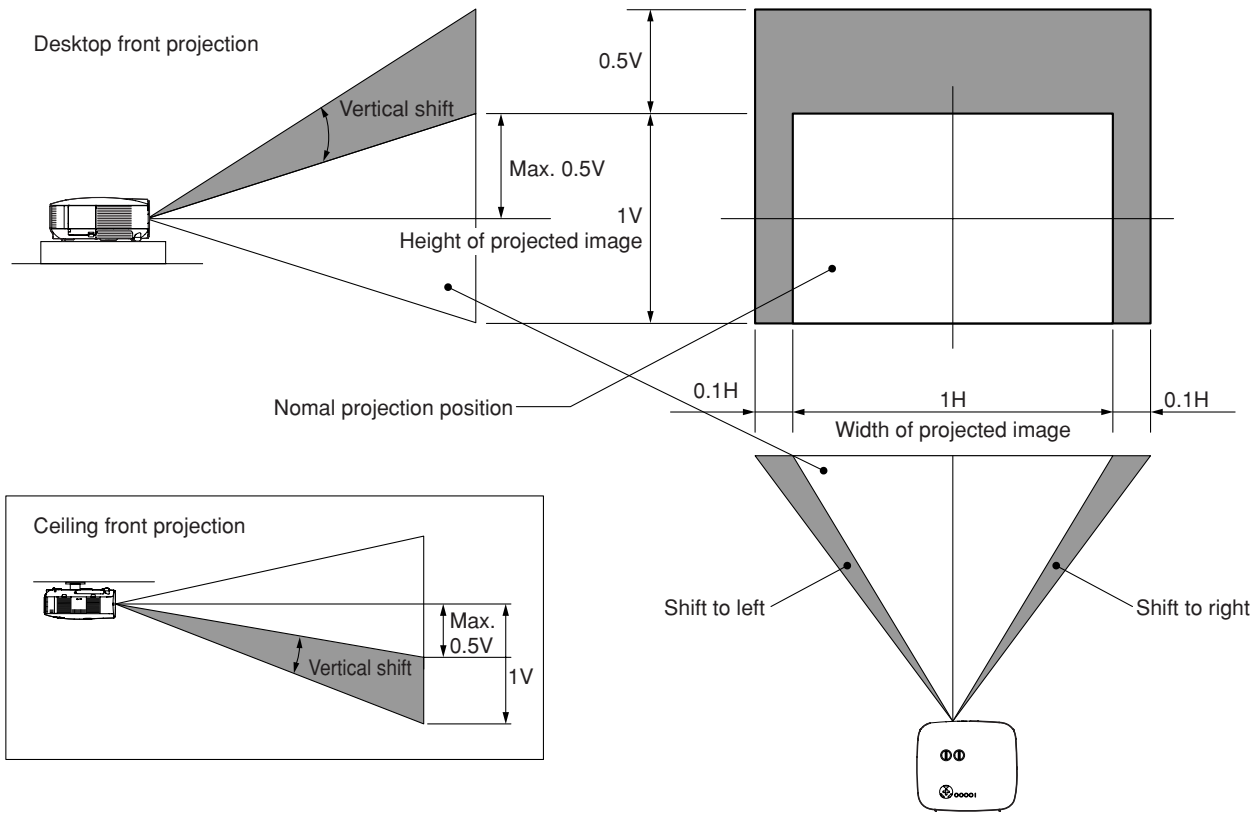
Adjusting the position of a projected image

- ***Rotate the lens shift dial.***



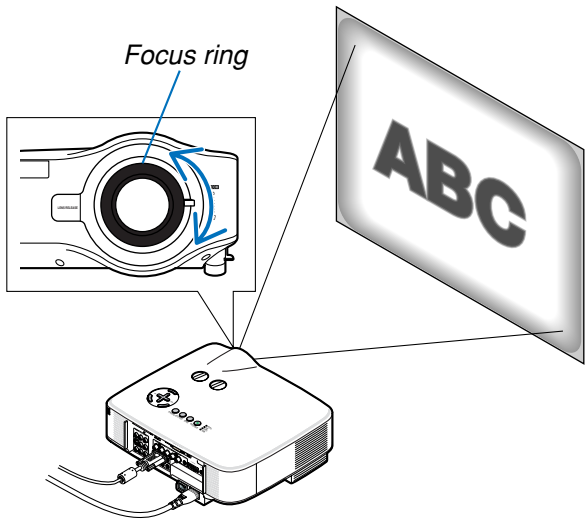
NOTE: The lens shift dial for LEFT-RIGHT cannot be rotated one-half turn or more.
Do not over rotate it or it may break.

TIP: *The lens shift dial for UP-DOWN can be rotated one turn or more, but not beyond the adjustable range defined below.*



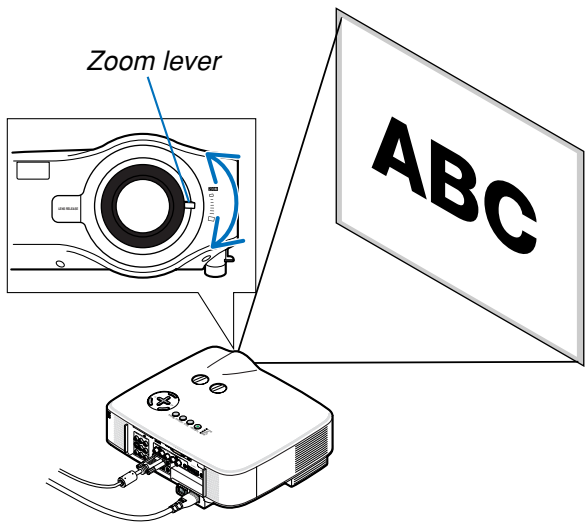
Adjusting the focus (Focus ring)

- *Rotate the focus ring to make focus adjustment.*



Finely adjusting the size of an image (Zoom lever)

- *Rotate the zoom lever to adjust the image size on the screen.*



Adjusting the Tilt Foot

1. ***Lift the front edge of the projector.***

> **⚠ CAUTION:**
> Do not try to touch the ventilation outlet during Tilt Foot adjustment as it can become heated while the projector is turned on and during its cool down period after it is turned off.

2. ***Push up the Adjustable Tilt Foot Levers on the right and left sides of the projector to extend the adjustable tilt feet (maximum height).***

3. ***Lower the front of the projector to the desired height.***

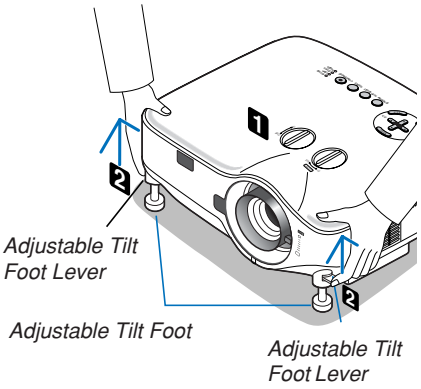
4. ***Release the Adjustable Tilt Foot lever to lock the Adjustable tilt foot.***

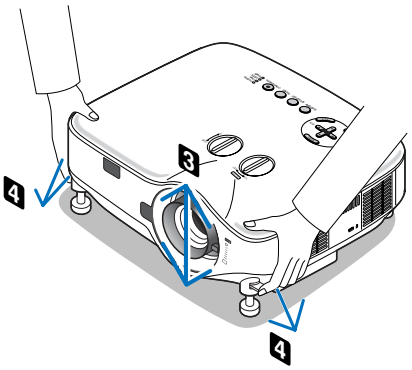
 There is approximately 10 degrees (up) of adjustment for the front of the projector.

 TIP: *For operating the [Keystone] screen, see "❹ Correcting Keystone Distortion" on page 31.*

 NOTE: Your "Keystone" correction data can be reset by pressing and holding the 3D REFORM button for a minimum of 2 seconds.

> **⚠ CAUTION:**
> Do not use the tilt-foot for purposes other than originally intended. Misuses such as using the tilt foot to carry or hang (from the wall or ceiling) the projector can cause damage to the projector.





❹ Correcting Keystone Distortion

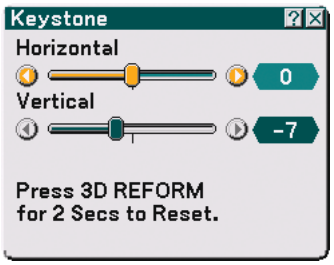
When the projector is not exactly perpendicular to the screen, keystone distortion occurs. To overcome it, you can use the **"Keystone" function**, a digital technology that can adjust for keystone-type distortion, resulting in a crisp, square image. The following procedure explains how to use the [Keystone] screen from the menu to correct trapezoidal distortions.

When the projector is placed diagonally to the screen,
When the projector is set up at an angle in relation to the screen, adjust the Horizontal option of the Keystone menu so that the top and bottom of sides of the projected image are parallel.



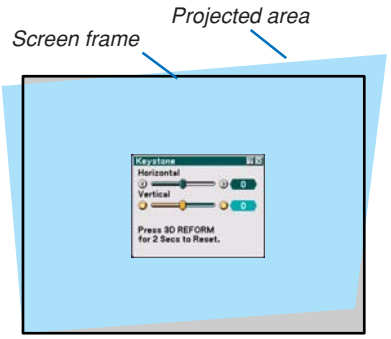
1. ***Press the 3D REFORM button on the remote control or the projector cabinet.***

 The Keystone screen will be displayed on the screen.

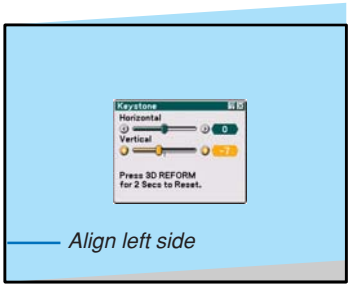


2. ***Press the SELECT ▼ button to select [Vertical] and then use the SELECT ◄ or ► so that the left and right sides of the projected image are parallel.***

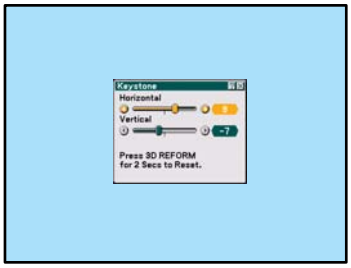
 ** Adjust the vertical keystone distortion.*



3. ***Align the left (or right) side of the screen with the left (or right) side of the projected image.***
 - *Use the shorter side of the projected image as the base.*
 - *In the right example, use the left side as the base.*



4. ***Press the SELECT ▲ button to select [Horizontal] and then use the SELECT ◄ or ► so that the top and bottom sides of the projected image are parallel.***
 - *Adjust the horizontal keystone distortion.*



5. Repeat steps 2 and 4 to correct keystone distortion.

6. After completing Keystone correction, press the ENTER button.

The Keystone screen will disappear.

- *To perform Keystone correction again, press the 3D REFORM button to display the Keystone screen and repeat above steps 1 to 6.*



NOTE:

- *If the projection angle is the same as in the last use, the previous correction setting values are retained in the memory.*
- *When doing Step 2, adjust the position of image so that the screen is smaller than the area of the projected area.*
- *To reset the 3D Reform correction setting values, press and hold the 3D REFORM button for a minimum of 2 seconds.*
- *Each time the 3D REFORM button is pressed, the item will change as follows: Keystone → Cornerstone → None → Keystone → ...*

For information on [Cornerstone], see "Correcting Horizontal and Vertical Keystone Distortion (Cornerstone) on page 41.

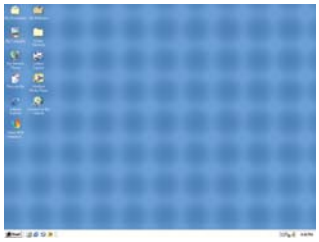
- *The Cornerstone adjustment will not be available during the Keystone adjustment. To perform the Cornerstone adjustment, press and hold the 3D REFORM button for a minimum of 2 seconds to reset the Keystone correction setting values. The Keystone adjustment will not be available during the Cornerstone adjustment. To perform the Keystone adjustment, press and hold the 3D REFORM button for a minimum of 2 seconds to reset the Cornerstone correction setting values.*
- *The 3D Reform feature can cause an image to be slightly blurred because the correction is made electronically.*

❺ Optimizing an RGB Image Automatically

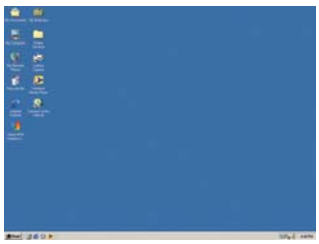
Adjusting the Image Using Auto Adjust

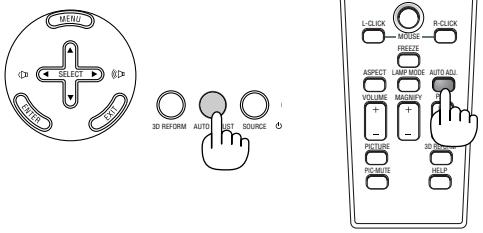
Optimizing an RGB image automatically.
Press the Auto Adjust button to optimize an RGB image automatically.
This adjustment may be necessary when you connect your computer for the first time.

[Poor picture]



[Normal picture]





NOTE:

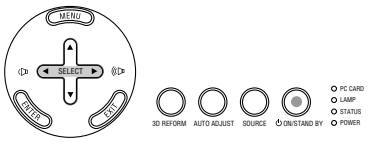
- *Some signals may take time to display or may not be displayed correctly.*
- *The Auto Adjust function does not work for component, video signals.*
- *If the Auto Adjust operation cannot optimize the RGB signal, try to adjust Clock and Phase manually. (→ page 75)*

❻ Adjusting Volume Up & Down

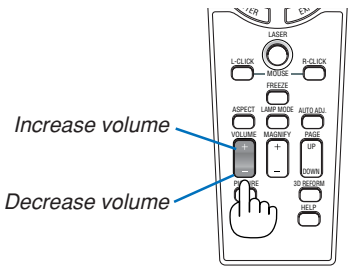
Sound level from the speaker and the AUDIO OUT jack (Stereo mini) on the projector can be adjusted.

NOTE:

- *Volume control is not available with the SELECT ◀ or ▶ button when an image is enlarged by using the MAGNIFY (+) button or when the menu is displayed.*
- *The sound level is set to 20 at the factory.*





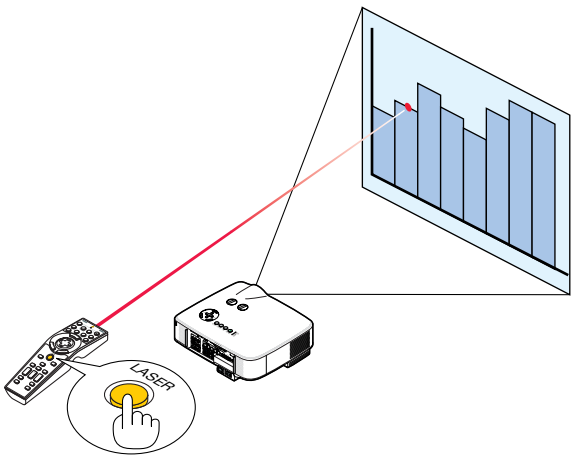


❼ Using the Laser Pointer

You can use the laser to draw your audience's attention to a red dot that you can place on any object.

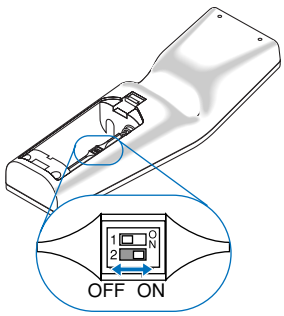
CAUTION:
- **Do not look into the laser pointer while it is on.**
- **Do not point the laser beam at a person.**
- **Do not allow children to use the laser pointer.**

Press and hold the LASER button to activate the laser pointer.



Setting the function switch

There are two switches on the bottom of the battery case: an applicable projector selector switch (1) and laser enable/disable switch (2). Check the projector being used and decide whether to enable or disable laser, then set these switches as necessary using the tip of a thin ball-point pen. On this model, an applicable projector selector switch (1) is not used.



Switch (2)

On Enabled (the laser lights when the LASER button is pressed) [Factory default]

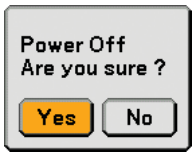
Off Disabled (the laser does not light even when the LASER button is pressed)

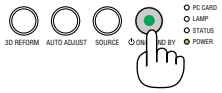
Disable the laser when using in an environment in which the unit is accessible to children.

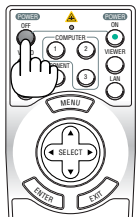
❽ Turning off the Projector

To turn off the projector:

1. ***Press the POWER (ON/STAND BY) button on the projector cabinet or the POWER OFF button on the remote control. The [Power Off / Are you sure?] message will appear.***

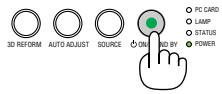


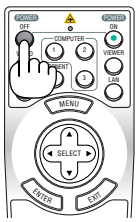




2. ***Press the ENTER button***

 After the projector turns off, the cooling fans keep operating for a while (Cooling-off time).
 The cooling fans stop operating when the projector turns off and goes into standby mode.
 When in standby mode, the POWER indicator will light orange and the STATUS indicator will light green.

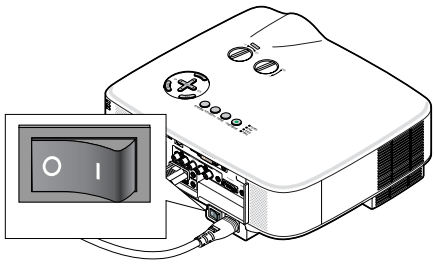




3. ***After making sure that the projector is in standby mode, turn off the Main Power switch. The power indicator will go out.***

 About Direct Power Off
 The projector has a feature called "Direct Power Off". This feature allows the projector to be turned off (even when projecting an image) using a power strip equipped with a switch and a breaker.

 NOTE: Before using Direct Power Off, be sure to allow at least 20 minutes immediately after turning on the projector and starting to display an image.



CAUTION

- Do not unplug the power cable from the wall outlet or projector when the projector is powered on. Doing so can cause damage to the AC IN connector of the projector and (or) the prong plug of the power cable. To turn off the AC power supply when the projector is powered on, use a power strip equipped with a switch and a breaker.
- Do not turn off the AC power supply within 10 seconds of making adjustment or setting changes and closing the menu. Doing so can cause loss of adjustments and settings and return to default.

TIP: *The projector can be unplugged during its cool down period after it is turned off.*

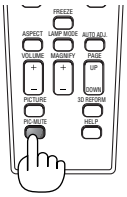
❾ After Use

Preparation: Make sure that the main power is turned off.

1. ***Unplug the power cable.***
2. ***Disconnect any other cables.***
3. ***Retract adjustable tilt feet if extended.***
4. ***Cover the lens with the lens cap.***

4. Convenient Features

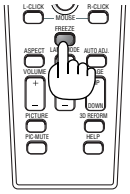
❶ Turning Off the Image and Sound



Press the PIC-MUTE button to turn off the image and sound for a short period of time. Press again to restore the image and sound.

TIP: *Even though the image is turned off, the menu still remains on the screen.*

❷ Freezing a Picture



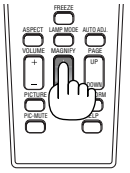
Press the FREEZE button to freeze a picture. Press again to resume motion.

TIP: *The image is frozen but the original video is still playing back.*

❸ Enlarging and Moving a Picture

You can enlarge the area you want up to 400 percent.

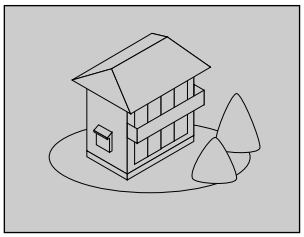
To do so:



1. Press the MAGNIFY (+) button.

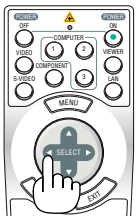
Each time the MAGNIFY (+) button is pressed, the image is magnified.

** Image can be magnified up to 400%*



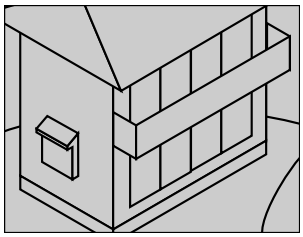
2. Press the SELECT ▲▼◀▶ button.

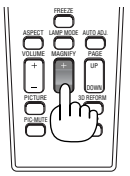
The area of the magnified image will be moved



3. Press the MAGNIFY (-) button.

Each time the MAGNIFY (-) button is pressed, the image is reduced.

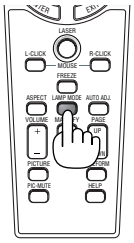




❹ Changing Lamp Mode

The lamp life can be extended by using the Eco mode.

To change to the [Eco] mode, do the following:



1. Press the LAMP MODE button to display [Lamp Mode] screen.

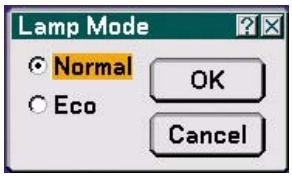
2. Use the SELECT ▲ or ▼ button to select [Eco] mode.

3. Press the ENTER button. Or press the SELECT ▶ button to select [OK] and press the ENTER button.

To cancel it, select [Cancel] and press the ENTER button.

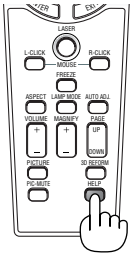
To change from [Eco] to [Normal], Go back to Step 2 and select [Normal]. Repeat Step 3.

Lamp Mode	Description	Status of LAMP indicator
Normal Mode	This is the Default setting (100% Brightness).	Off
Eco Mode	Select this mode to increase the lamp life approx. 85% Brightness (light output)	Steady Green light

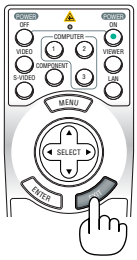


❺ Getting Integrated Help

You get the contents about Help in English, German and Japanese.



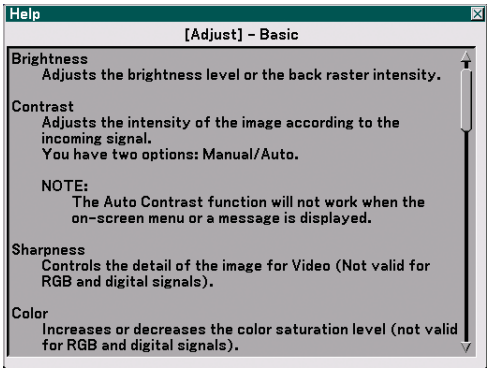
Display Help



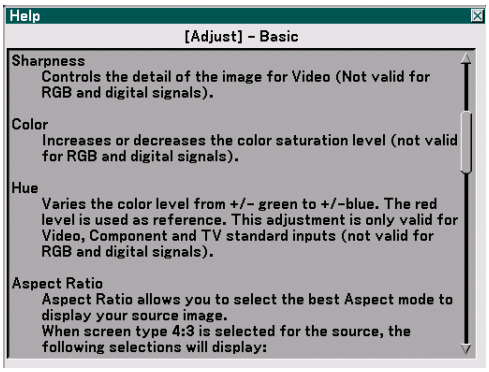
Exit Help

1. Press the HELP button on the remote control.

- When no menus appear, the "How to Use Help" screen will be displayed.
- When menus appear, the screen will be displayed, explaining the function of a highlighted item.



2. Use the SELECT▲ or▼ button to scroll the viewing area.



3. Press the EXIT button.

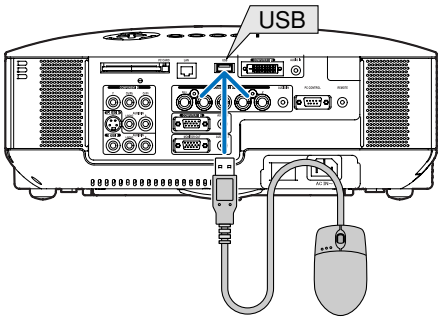
- The Help will be closed.

❻ Using a USB Mouse

Using a USB mouse gives you a smooth operation. A commercially available USB mouse can be used.

NOTE: There may be some brands of a USB mouse that the projector does not support.

NOTE: Do not try to insert the plug of your USB mouse into the LAN port (LAN) of the projector.
Doing so can cause damage to the LAN port.



Operate the Menus using the USB mouse

Mouse Cursor

When connecting a USB mouse to the projector, you get a mouse cursor on the screen.
Unless you use your USB mouse within 10 seconds, the mouse cursor disappears.

NOTE: You can change the shape of the mouse cursor. To do so, select the menu → [Setup] → [Tools] → [Mouse] → [Mouse Pointer].

Menu Display

Clicking with the left mouse button displays the menu.
To close the menu, click anywhere in the background.

Adjusting and Setting Display

You can select a menu item and click with the left mouse button to make adjustments and settings.

Using the middle button on the mouse

The projector supports the middle button on your mouse.
With the middle button you can do the following:

- You can use a scroll bar in the menu or the help.
- You can click the middle button to display or hide the ChalkBoard toolbar.

Example:

Click (or press and hold) the left mouse button on the ◀ or ▶ to adjust the brightness. Or click and drag the left mouse button on the slide bar horizontally to adjust it.

To save the adjustments, click . The display is closed.



- Click  with the left mouse button to display a description of the selected menu item.
- Click and drag the title bar with the left mouse button to move the adjustment or setting dialog box.

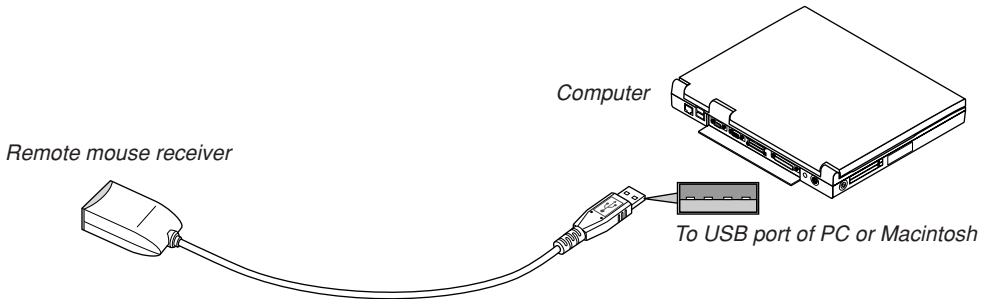
❼ Using the Optional Remote Mouse Receiver

The optional remote mouse receiver enables you to operate your computer's mouse functions from the remote control. It is a great convenience for your computer-generated presentations.

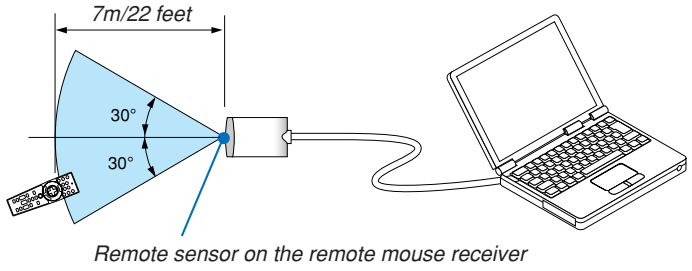
Connecting the remote mouse receiver to your computer

If you wish to use the remote mouse function, connect the mouse receiver and computer.
The mouse receiver can be connected directly to the computer's USB port (type A).

NOTE: Depending on the type of connection or OS installed on your computer, you may have to restart your computer or change your computer settings.



When operating a computer via the remote mouse receiver



When connecting using the USB port

For PC, the mouse receiver can only be used with a Windows 98/Me/XP*, Windows 2000 or MacOS X 10.0.0 or later operating system.

** NOTE: In SP1 or older verison of Windows XP, if the mouse cursor will not move correctly, do the following:*
Clear the Enhance pointer precision check box underneath the mouse speed slider in the Mouse Properties dialog box [Pointer Options tab].

NOTE: Wait at least 5 seconds after disconnecting the mouse receiver before reconnecting it and vice versa. The computer may not identify the mouse receiver if it is repeatedly connected and disconnected in rapid intervals.

Operating your computer's mouse from the remote control

You can operate your computer's mouse from the remote control.

PAGE UP/DOWN Button scrolls the viewing area of the window or to move to the previous or next slide in PowerPoint on your computer.

SELECT ▲▼◀▶ Button moves the mouse cursor on your computer.

MOUSE L-CLICK Button works as the mouse left button.

MOUSE R-CLICK Button works as the mouse right button.

NOTE: When you operate the computer using the SELECT ▲▼◀▶ button with the menu displayed, both the menu and the mouse pointer will be affected. Close the menu and perform the mouse operation.

About Drag Mode:

By pressing the MOUSE L-CLICK or R-CLICK button for 2 or 3 seconds then releasing, the drag mode is set and the drag operation can be performed simply by pressing the SELECT ▲▼◀▶ button. To drop the item, press the MOUSE L-CLICK (or R-CLICK) button. To cancel it, press the MOUSE R-CLICK (or L-CLICK) button.

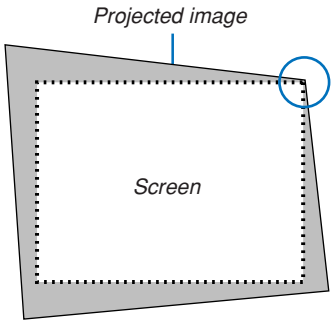
TIP: *You can change the Pointer speed on the Mouse Properties dialog box on the Windows. For more information, see the user documentation or online help supplied with your computer.*

❽ Correcting Horizontal and Vertical Keystone Distortion (Cornerstone)

Use the 3D Reform feature to correct keystone (trapezoidal) distortion to make the top or bottom and the left or right side of the screen longer or shorter so that the projected image is rectangular.

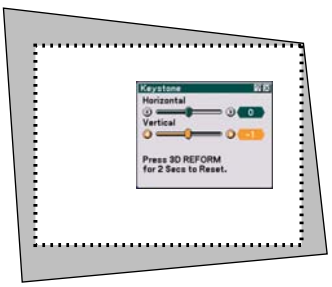
Cornerstone

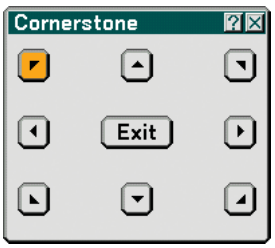
1. ***Press and hold the 3D REFORM button for a minimum of 2 seconds to reset current adjustments.***
 Current adjusments for [Keystone] or [Cornerstone] will be cleared.
2. ***Project an image so that the screen is smaller than the area of the raster.***
3. ***Pick up any one of the corners and align the corner of the image with a corner of the screen.***



The drawing shows the upper right corner.

4. ***Press the 3D REFORM button twice.***
 The Cornerstone adjustment screen is displayed.



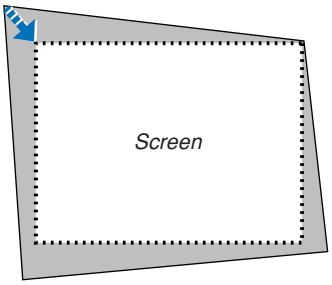


The drawing shows the upper left icon (▶) is selected.

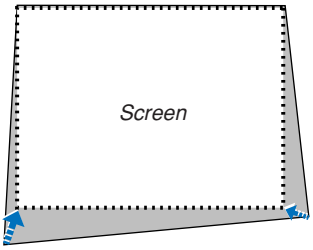
TIP: *If you are adjusting [Keystone], [Cornerstone] will not be available. If this happens, press and hold the 3D REFORM button for a minimum of 2 seconds to reset the [Keystone] adjustments.*

5. ***Use the SELECT ▲▼◀▶ button to select one icon (▲) which points in the direction you wish to move the projected image frame.***
6. ***Press the ENTER button.***

7. Use the SELECT ▲▼◀▶ button to move the projected image frame as shown on the example.

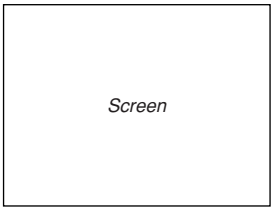


8. Press the ENTER button.



9. Use the SELECT ▲▼◀▶ button to select another icon which points in the direction.

On the Cornerstone adjustment screen, select [Exit] or press the EXIT button on the remote control.



The confirmation screen is displayed.



10. Press the SELECT ◀ or ▶ button to highlight the [OK] and press the ENTER button.

This completes the Cornerstone correction.
Selecting [Cancel] will return to the adjustment screen without saving changes (Step 3).
Selecting [Reset] will return to the factory default.
Selecting [Undo] will exit without saving changes.

NOTE: To reset the 3D Reform correction setting values, press and hold the 3D REFORM button for a minimum of 2 seconds.

NOTE: During 3D Reform adjustment, [Aspect Ratio] and [Screen] may not be available. Should this happen, first reset the 3D Reform data and then do each setting. Second repeat the 3D Reform adjustment. Changing [Aspect Ratio] and/or [Screen] setting can limit [3D Reform] in its adjustable range.

The adjustable ranges for 3D Reform are as follows:

	Horizontal	Vertical
Cornerstone	Max. +/– 35° approx.	Max. +/– 40° approx.
Keystone	Max. +/– 27° approx.	

* The following are conditions under which the maximum angle is achived:

- When the standard lens is used
- When the lens shift is set to the center
- When the lens shift is used and yet the image is not displayed in the center of the screen, the adjustable range will be increased or decreased.
- Image is projected in Wide (Zoom lever)
- Resolution is XGA

 Higher resolution than XGA narrows the adjustable range.
- Menu items should be set as follows:
 Aspect Ratio 4:3
 Screen Type 4:3
- Horizontal and Vertical are adjusted separately.
 A combination of both adjustments narrows the adjustable range.

NOTE:

- *If the Cornerstone screen is unavailable (grayed), press and hold the 3D REFORM button for a minimum of 2 seconds to reset the current correction data. The Cornerstone function becomes available.*
- *Turning on the projector will reset the previous correction setting values and correct distortion anew if the projection angle is changed from the last use.*
 If the projection angle is the same as in the last use, the previous correction setting values are retained in the memory.

NOTE: Using 3D Reform correction can cause the image to be slightly blurred because the correction is made electronically.

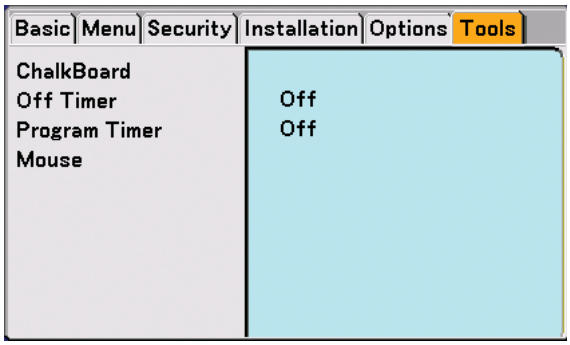
❾ Making Freehand Drawings on a Projected Image (ChalkBoard)

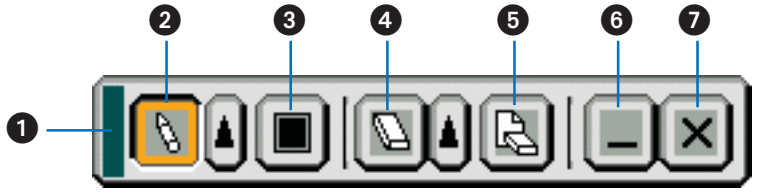
The ChalkBoard feature allows you to write and draw messages on a projected image.

NOTE: Selecting another source will quit the ChalkBoard function.

NOTE: The ChalkBoard feature is available only when a USB mouse is used.

To display the ChalkBoard tool bar, click the middle button on your mouse or select [ChalkBoard] from the menu. The tool bar contains the following icons.





❶ Drag Drags to move the tool bar.

❷ Pen Left-click and drag to draw lines freehand. Left-click or right-click the pen icon to display the pen palette containing four lines of different thickness from which you can select a line you prefer by left-clicking.

❸ Color Selects the color of a line. Left-click to display the color palette from which you can select a color you prefer by left-clicking.

❹ Eraser Left-click and drag to erase part of a drawing. Left-click or right-click the eraser icon to display the eraser palette containing four erasers of different thickness from which you can select an eraser you prefer by left-clicking.

❺ Clear Left-click to clear the drawing completely from the ChalkBoard screen.

❻ Hide Hides the tool bar by left-clicking. Right-clicking anywhere on the screen displays the ChalkBoard tool bar again.

❼ Exit Clears the complete drawing and exits the ChalkBoard.

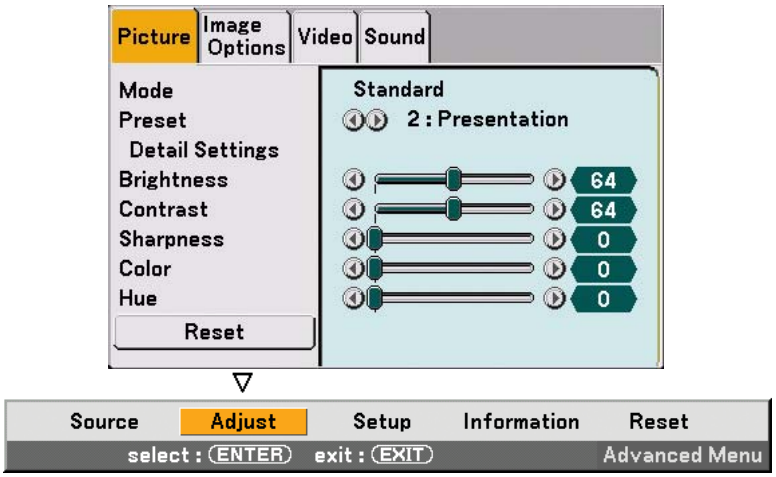
⑩ Preventing Unauthorized Use of the Projector

Assigning a keyword prevents the projector from being used by unauthorized individuals.

Assigning a Keyword for the first time

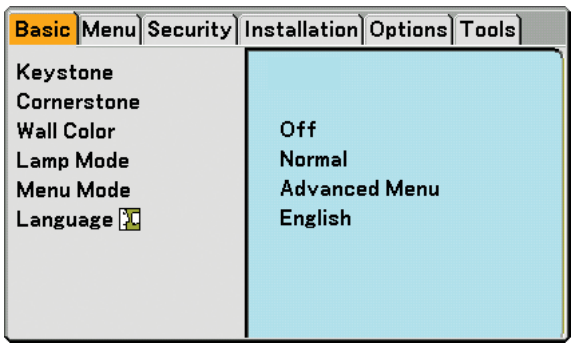
1. Press the MENU button.

The menu will be displayed.

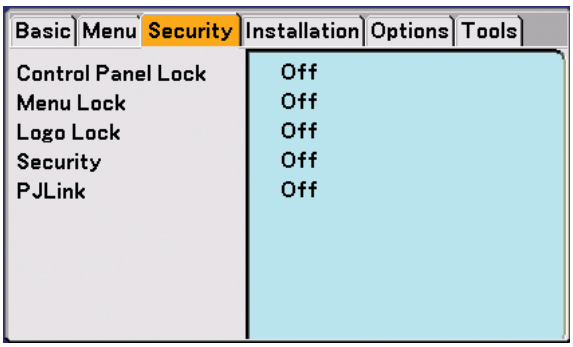


2. Press the SELECT ▶ button to highlight the [Setup] submenu and press the ENTER button.

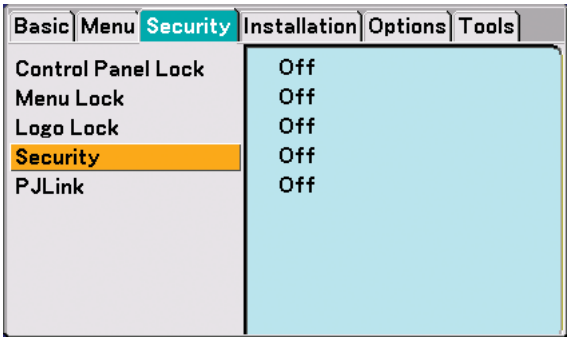
The page tab [Basic] will be highlighted.



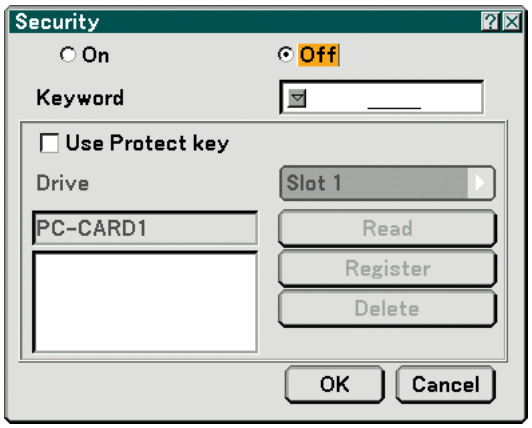
3. Press the SELECT ▶ button twice to highlight the page tab [Security].



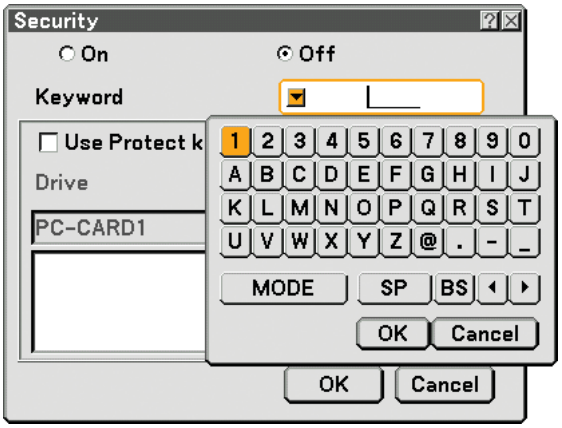
4. Press the SELECT▼ button four times to highlight [Security].



5. Press the ENTER button to display the Security screen.



6. Press the SELECT▼ button once to highlight the Keyword entry box and press the ENTER button. The Software keyboard will be displayed.

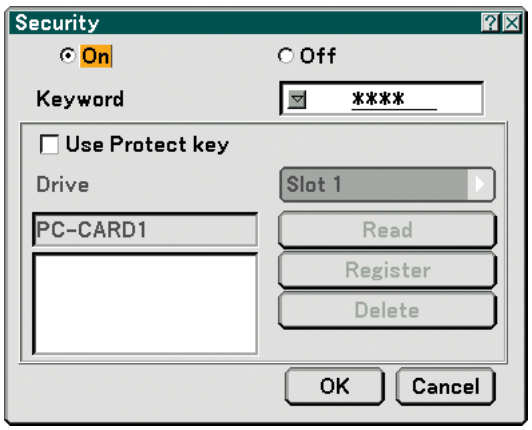


7. Enter an alphanumeric keyword using the Software keyboard
For example, to enter "1234", follow the steps 7-1 to 7-4 below.

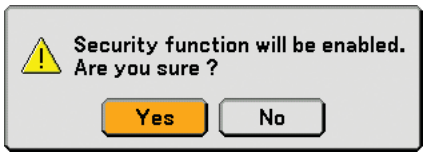
NOTE:
• Please make a note of your keyword.
• Do not use spaces (SP) in your keyword.

7-1. Highlight the number "1" and press the ENTER button.
The asterisk "✻" will be displayed in the Keyword entry box.
7-2. Press the SELECT ▶ button once to highlight "2" and press the ENTER button.
The asterisk "✻✻" will be displayed in the Keyword entry box.
7-3. For "3" and "4", use the same procedure as step 7-2.
The asterisk "✻✻✻✻" will be displayed in the Keyword entry box.
7-4. Press the SELECT ▼ button to highlight [OK] and press the ENTER button.
The Software keyboard will disappear.

8. Press the SELECT ▲ button once to highlight [Off] and press the SELECT ◀ button to highlight [On].



9. Press the SELECT ▼ button to highlight [OK] and press the ENTER button.
The confirmation screen will be displayed.



10. Press the SELECT ◀ or ▶ button to highlight [Yes] and press the ENTER button.
The Security Function is now enabled.

NOTE: A PC card can be used as a protect key. You can skip the keyword entry by inserting a registered PC card when turning on the projector. (→ page 84)

Checking If Security is enabled

Turn off the projector and turn it back on to check if the Security function is enabled.

1. ***Press the POWER (ON/STANDBY) button.***

 The [Power Off / Are you sure?] message will appear.

 Press the ENTER button or the POWER (ON/STANDBY) or the POWER OFF button again.

 The lamp lights off and the POWER indicator flashes orange. Please wait until the POWER indicator changes from flashing to steady light.

2. ***When the POWER indicator lights steady orange, push the Main POWER switch to the off position (O).***

 The projector will turn off.

3. ***Push the Main POWER switch to the on position (I).***

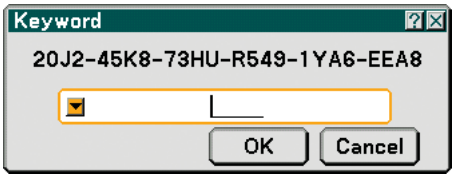
 The POWER indicator lights orange. The projector is in standby condition.

4. ***Press and hold the POWER (ON/STANDBY) button for a minimum of two seconds.***

 The projector will turn on. The [Projector is locked! Enter your keyword.] message will be displayed at the bottom of the screen.

5. ***Press the MENU button.***

 The Keyword entry screen will be displayed



6. ***Press the ENTER button.***

 The Software keyboard will be displayed.

7. ***Use the same procedures as steps 1 to 7 described in the "Assigning a Keyword for the first time" section to enter "1234".***

 Each time one number is entered, an "✽" (asterisk) will appear. Keyword appears as asterisks so the real keyword is hidden.

8. ***After entering your keyword, highlight [OK] and press the ENTER button.***

 The Software keyboard will disappear. This will allow you to operate the projector.

Disabling the Security

1. ***Press the MENU button.***

 The menu will be displayed.

 NOTE: Immediately after the projector has been turned on and the "Projector is locked! Enter your keyword." message is displayed at the bottom of the screen, pressing the MENU button will display the Keyword entry will be displayed. At this time, pressing the MENU button will display the menu.

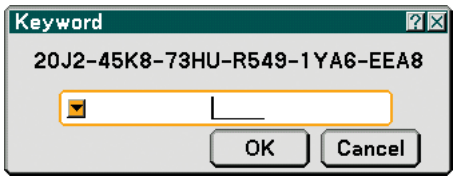
2. ***Press the SELECT▶ button to highlight [Setup] and press the ENTER button.***

 The page tab [Basic] will be highlighted.

3. ***Press the SELECT▶ button twice to highlight the page tab [Security].***

4. ***Press the SELECT▼ button four times to highlight [Security] and press the ENTER button.***

 The Keyword entry screen will be displayed



5. ***Press the ENTER button.***

 The Software keyboard will be displayed.

6. ***Use the same procedures as steps 1 to 7 described in the "Assigning a Keyword for the first time" section to enter "1234".***

 Each time one number is entered, an "✻" (asterisk) will appear. Keyword appears as asterisks so the real keyword is hidden.

7. ***After entering your keyword, highlight [OK] and press the ENTER button.***

 The Software keyboard will disappear. The Security screen will be displayed.

8. ***Highlight [On] and press the SELECT▶ button to highlight [Off].***

9. ***Press the SELECT▼ button to highlight [OK] and press the ENTER button.***

 The Security Function is now disabled.

NOTE: Do not forget your keyword. However, if you forget your keyword, your dealer will provide you with your Release Code upon proof of ownership.

⓫ Operation Using an HTTP Browser

Overview

The use of HTTP server functions will allow control of the projector from a web browser without the installation of special software. Please be sure to use “Microsoft Internet Explorer 4.x” or a higher version for the web browser. (This device uses “JavaScript” and “Cookies” and the browser should be set to accept these functions. The setting method will vary depending on the version of browser. Please refer to the help files and the other information provided in your software.)
Access is gained to the HTTP server functions by specifying
http:// <the projector’s IP address> /index.html
in the entry column of the URL.

NOTE:

- *The display’s or button’s response can be slowed down or operation may not be accepted depending the settings of your network. Should this happen, consult your network administrator.*
 The projector may not respond if its buttons are repeatedly pressed in rapid intervals. Should this happen, wait a moment and repeat. If you still can’t get any response, turn off and back on the projector.
- *Do not use the HTTP Server functions and PC Control Utility 3.0 included on the supplied CD-ROM. Using both at the same time may result in a connection failure or slow response.*

Preparation Before Use

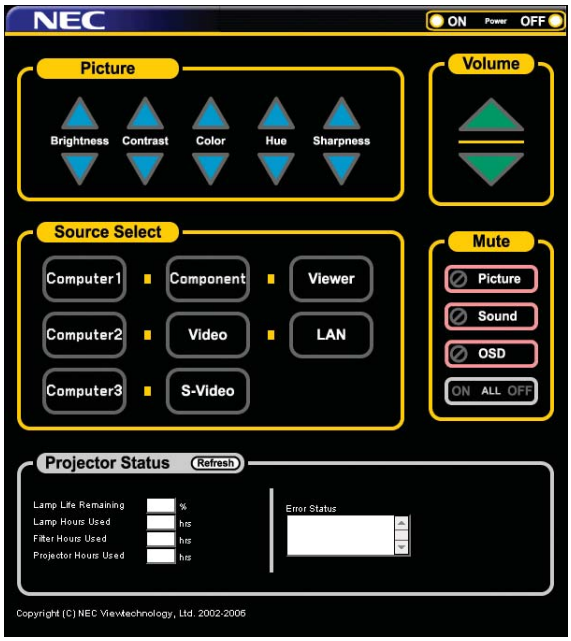
Make network connections and set up the projector and confirm that it is complete before engaging in browser operations. (→ [LAN Mode] on page 89)
Operation with a browser that uses a proxy server may not be possible depending on the type of proxy server and the setting method. Although the type of proxy server will be a factor, it is possible that items that have actually been set will not be displayed depending on the effectiveness of the cache, and the contents set from the browser may not be reflected in operation. It is recommended that a proxy server not be used unless it is unavoidable.

Handling of the Address for Operation via a Browser

Regarding the actual address that is entered for the address or entered to the URL column when operation of the projector is via a browser, the host name can be used as it is when the host name corresponding to the IP address of the projector has been registered to the domain name server by a network administrator, or the host name corresponding to the IP address of the projector has been set in the “HOSTS” file of the computer being used.

Example 1: When the host name of the projector has been set to “pj.nec.co.jp”,
http://pj.nec.co.jp/index.html
is specified for the address or the entry column of the URL.
Example 2: When the IP address of the projector is “192.168.73.1”, access is gained to the HTTP server functions by specifying
http://192.168.73.1/index.html
for the address or the entry column of the URL.

Structure of the HTTP Server



Power: This controls the power of the projector.
On Power is switched on.
Off Power is switched off.

Volume: This controls the volume of the projector.
▲ Increases the volume adjustment value.
▼ Decreases the volume adjustment value.

Mute: This controls the mute function of the projector.
Picture On Mutes the video.
Picture Off Cancels the video muting.
Sound On Mutes the audio.
Sound Off Cancels the audio muting.
OSD On Mutes the on-screen display.
OSD Off Cancels the muting of the on-screen display.
All On Mutes each of the video, audio, and on-screen display functions.
All Off Cancels the muting of each of the video, audio, and on-screen display functions.

Picture: Controls the video adjustment of the projector.
Brightness ▲ ... Increases the brightness adjustment value.
Brightness ▼ ... Decreases the brightness adjustment value.
Contrast ▲ Increases the contrast adjustment value.
Contrast ▼ Decreases the contrast adjustment value.
Color ▲ Increases the color adjustment value.
Color ▼ Decreases the color adjustment value.
Hue ▲ Increases the hue adjustment value.
Hue ▼ Decreases the hue adjustment value.
Sharpness ▲ ... Increases the sharpness adjustment value.
Sharpness ▼ ... Decreases the sharpness adjustment value.

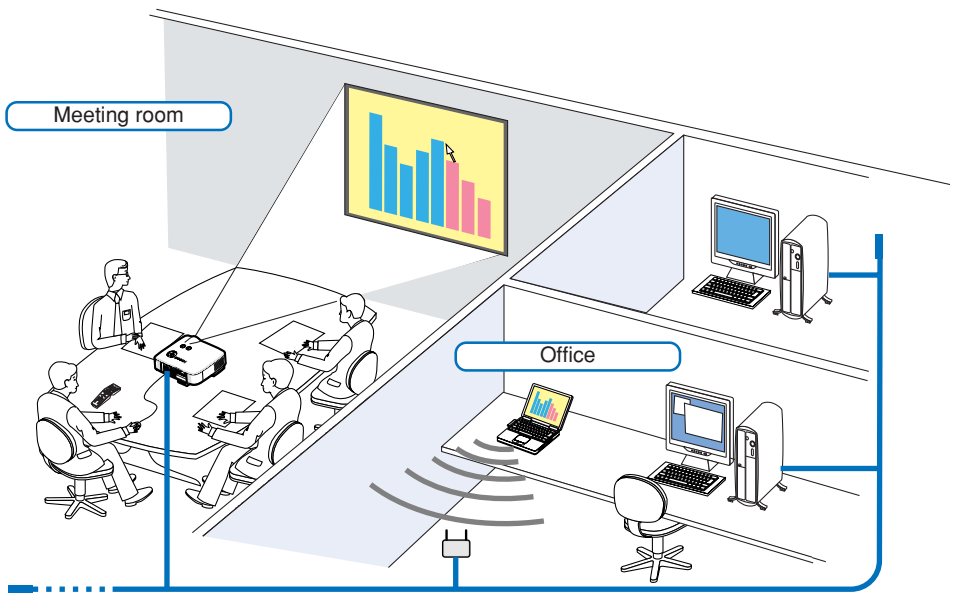
- The functions that can be controlled will vary depending on the signal being input to the projector. (→ page 74)

Source Select: This switches the input connector of the projector.
- Computer1 Switches to the COMPUTER 1 IN connector.
- Computer2 Switches to the COMPUTER 2 IN connector.
- Computer3 Switches to the COMPUTER 3 IN connector.
- Component Switches to the COMPONENT IN connectors.
- Video Switches to the VIDEO IN connector.
- S-Video Switches to the S-VIDEO IN connector.
- Viewer Switches to the data on the PC card or USB memory device.
- LAN Switches to a LAN signal.

Projector Status: This displays the condition of the projector.
- Refresh Updates the display of the following conditions.
- Lamp Life Remaining Displays the remaining life of the lamp as a percentage.
- Lamp Hours Used Displays how many hours the lamp has been used.
- Filter Hours Used Displays how many hours the filter has been used.
- Projector Hours Used . Displays how many hours the projector has been used.
- Error Status Displays the status of errors occurring within the projector.

⑫ Using the Projector to Operate a Computer Connected on a Network (Desktop Control Utility 1.0)

When Desktop Control Utility 1.0 on the included User Supportware 3 CD-ROM is installed on the computer, that computer can be operated using the projector over a network.
For example, say you have a PowerPoint file on a computer in your office that you want to use for a presentation at a meeting. If the computer in the office is connected by LAN to the projector in the meeting room, the projector can be operated to project the image of the desktop of the computer (Windows 2000/Windows XP) in the office and display the PowerPoint file during the meeting. This eliminates the need for taking the computer from the office to the meeting room.



Disclaimer

You can use the Desktop Control Utility 1.0 to operate a computer located in a separate room from the projector over a network. This means there might be potential security risks that you may be exposed to which could cause damage by unauthorized access or illegal use. We recommend you take some measures to prevent third parties from unauthorized access to your data or information.
We share neither liability nor responsibility to any loss or damages arising from information leak or power down without notice.

NOTE: In Windows operating system, click [Control Panel] → [Power Options] → [System Standby] → [Never]. This will disconnect a LAN connection when the computer goes in standby mode.

NOTE: To use the Desktop Control Utility 1.0, you need to have a USB mouse inserted into the USB port of the projector.

Operations on the Computer

1. ***Connect the computer to the LAN and make the required settings.***
2. ***Install Desktop Control Utility 1.0 on the computer.***
 - *For instructions on installing and operating the software, see the "User Supportware 3 User's Guide" (PDF) contained on User Supportware 3 CD-ROM.*
3. ***Prepare the documents to be presented at the meeting and save them on the computer.***
4. ***Start up Desktop Control Utility 1.0.***
 The Startup password window appears.

Window at the first startup



Window after entering your startup password



Important:

- Your startup password will be required each time you start Desktop Control Utility 1.0.
- If you forget or lost your startup password, install the program again.

5. ***Input the startup password and click [OK].***
 The [Current password] input window appears.



NOTE: The [Current password] will be changed each time you start Desktop Control Utility 1.0.

6. ***Make a note of the password.***
7. ***Click [OK].***
 Desktop Control Utility 1.0 starts.

Go to the room where the projector is installed, taking the password you made a note in the previous Step [6].

Operations on the projector – Connecting to the computer

1. *Make the LAN settings on the projector.*
 Make the LAN settings at [Setup] → [Installation] → [LAN Mode] in the menu. (→ page 89)
2. *Connect a commercially available USB mouse to the projector. (→ page 38)*
3. *Click anywhere on the screen with the USB mouse.*
 The menu appears.
4. *Click [Source], then click [LAN].*
 The help message is displayed.
 The message is displayed only when a password for Desktop Control Utility 1.0 is not assigned.



5. *Follow the message to press the MENU button on the projector cabinet or the remote control.*
 The connections bar appears at the bottom left of the screen.



6. *Click the password input icon* .
7. *Click [Entry].*



The password input window appears.



8. *Click* .



The character input window appears. (→ page 128)

9. Input the password you made a note of in the previous Step 6 in "Operations on the Computer".

10. Input the password and click [OK].
The password input window is turned off.

11. Click the PC search icon .
The PC search window appears.



12. Click [OK].
The connection selection window appears.

- *To search by inputting the IP address of the connected computer, click on the PC Search window, click [Input IP Address], then click [OK].*

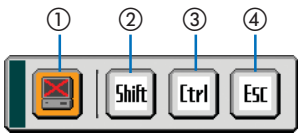
13. Click the computer to which you want to connect, then click [OK].
The desktop of the connected computer appears.



NOTE: Once the desktop appears, the menu will no longer appear when the USB mouse is clicked. To display the menu while the desktop is displayed, press the button on the projector itself or on the remote control.

Operations on the projector –Operating the desktop

A USB mouse connected to the projector can be used to operate the displayed desktop.
If the MENU button on the projector cabinet or the remote control is pressed while the desktop is displayed, an additional operations bar appears at the bottom left of the screen.



The following operations are available only with buttons on the projector cabinet or the remote control.

① Disconnect icon Use to cut off communications with the computer.

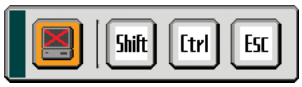
② Shift icon Select this icon and press the ENTER button to set the shift lock mode. Select this icon and press the ENTER button again to cancel the shift lock mode.

③ Ctrl icon Select this icon and press the ENTER button to set the control lock mode. Select this icon and press the ENTER button again to cancel the control lock mode.

④ Esc icon Use to do the same operation as when the "Esc" button on the computer is pressed. Use it for example to stop a PowerPoint slideshow.

Operations on the projector – Disconnecting communication

1. ***Press the MENU button while the desktop is displayed.***
 The additional operations bar appears at the bottom left of the screen.



2. ***Select the disconnect icon and press the ENTER button.***
 The connections bar appears at the bottom left of the screen.

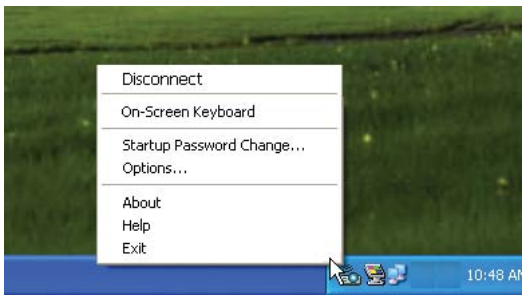
 To reconnect the communication, click the PC search icon and repeat steps 12 and 13 in the previous page.

NOTE: Disconnection is possible by clicking the projector icon and then "Disconnect" on the task bar.

Operations on the projector – Exiting the desktop operation

Exiting the desktop operation using the taskbar in Windows.

1. ***Click the projector icon on the taskbar while the desktop is displayed.***
 The pop-up menu appears.



2. ***Click [Exit].***
 Desktop Control Utility 1.0 quits
3. ***Click anywhere on the screen.***
 The connections bar appears at the bottom left of the screen.
4. ***Click again anywhere on the screen.***
 The menu appears.
5. ***Click [Source] and then click any other source than [LAN].***
 The menu turns off.

5. Using the Viewer

❶ Making the Most out of the Viewer Function

Features

The Viewer feature allows you to view slides stored on a PC memory card (referred to as PC card in this manual) or USB memory on the projector. Even if no computer is available, presentations can be conducted simply with the projector. This feature is convenient for holding presentations at meetings and in offices, as well as for playing images taken on digital cameras.

Easy to use

- Presentations can be started immediately simply by inserting a PC card or USB memory (not supplied)
- Easy slide switching
- Remote control operation
- Jumping to a list of slides or any specific slide

Simple utility software (for computer)

- Ulead Photo Explorer 8.0SE Basic operable on Windows XP/Windows 2000.
- Slides can be created by capturing the currently displayed image.
- Control screen for displaying lists of slides and editing.

* Microsoft, Windows and PowerPoint are registered trademarks of Microsoft Corporation.

TIP:

- *To use the Viewer, first you need to create presentation materials on your PC (JPEG, BMP, GIF*1, PNG*1, Index*2 files).*
 For creating presentation materials using the Ulead Photo Explorer 8.0, see the supplied "User Supportware 3 User's Guide" or Online help in Ulead Photo Explorer 8.0.
 **1 Both PNG and GIF format support non-interlaced images only.*
 **2 "Index" file is a file created using the Ulead Photo Explorer 8.0 contained on the supplied NEC User Supportware 3 CD-ROM. See the supplied "User Supportware 3 User's Guide" for installing the Ulead Photo Explorer 8.0 on your computer.*

NOTE:

- *Use commercially available USB memory devices.*
- *The PC Card slot accepts PCMCIA Type II only.*
- *Some USB memory devices (brands) may not work. See our website for available USB memory devices:http://www.nec-pj.com*
- *The projector does not support NTFS formatted flash memory card or USB memory device.*
 Be sure to use a flash memory card or USB memory device formatted with the FAT32, FAT16 or FAT file system.
 To format your flash memory card or USB memory device in your computer, refer to the document or help file that comes with your Windows.

❷ Saving data to a PC card or USB memory device

There are two ways to save your data to a PC card or USB memory device.

Using Ulead Photo Explorer 8.0

Install Ulead Photo Explorer 8.0 from the supplied User Supportware 3 CD-ROM to your computer. Use Ulead Photo Explorer 8.0 to create PowerPoint files or graphic data on your computer and save the files to a PC card or USB memory device.
Files created on Ulead Photo Explorer 8.0 are index format.
For more details about Ulead Photo Explorer 8.0, see the supplied "Wired and Wireless Network Setup Guide", "Basic Operation Guide (PDF)" on the User Supportware 3 CD-ROM and the help file of Ulead Photo Explorer 8.0.

Using Windows Explorer to save files

Supported file format for Viewer are JPEG, BMP, PNG, GIF and Index.

❸ Operating the Viewer Function from the Projector (playback)

This section describes the operation for showing slides created using the Viewer function with the projector. It is also possible to make slides directly from the images projected with the projector.

Projecting slides (Viewer)

Preparation: Store JPEG or BMP files (JPEG, BMP, non-interlaced GIF or non-interlaced PNG files) in a PC card or USB memory inserted into your PC.
To start the Viewer, press the SOURCE button on the cabinet to select [Viewer]. (→ page 26)
Viewer screen will be displayed. (A slide will be displayed at the factory default.)

- You can use the VIEWER button on the remote control to select [Viewer].

Operating Viewer Menu

1. ***Insert a PC card into the PC card slot or USB memory into the USB port of the projector.***
2. ***Press the VIEWER button on the remote control or select the [Viewer] from the source list.***
 An image stored in the PC card or USB memory will be displayed.
3. ***Press the MENU button to display the Viewer menu.***
 The Viewer menu will appear when you press the MENU button on the remote control or the projector cabinet.

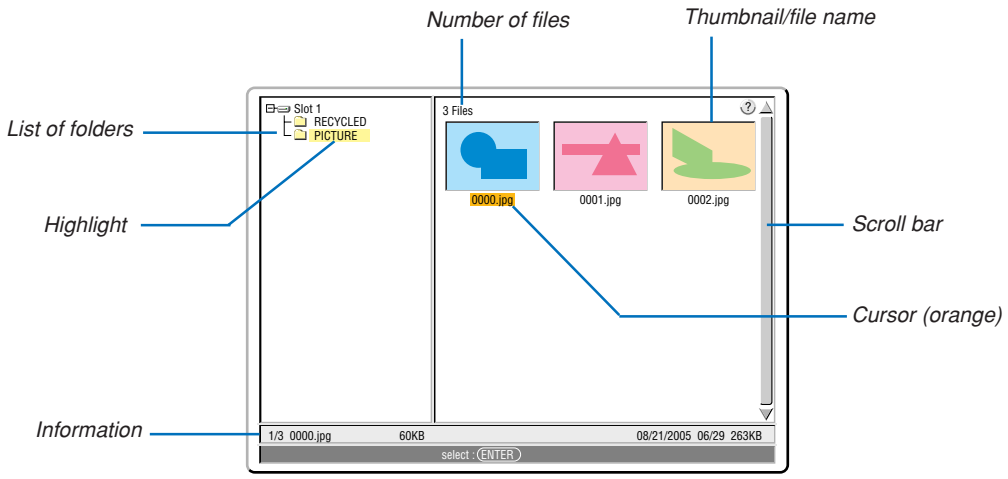


The Viewer menu includes the following commands:

Play Plays back automatically or manually depending on the setting in Options. This allows you to move on to the next slide when [Manual] is selected in the [Play Mode].
Stop This allows you to stop Auto Play while you are playing back and to resume playing from the selected slide or folder when [Auto] is selected in the [Play Mode].
Thumbnails Displays a list of thumbnails of Graphic files stored in the PC card or USB memory inserted into the projector.
Logo Replace the default background logo with another logo in JPEG, BMP, non-interlaced GIF or non-interlaced PNG format.
Options Displays the Viewer setting options.

4. ***Select [Play] and then press the ENTER button to display the first slide or to start playing slides automatically.***

Viewer Window Elements



Highlight Indicates the selected folder or drive.

List of folders Indicates folders contained on a PC card or USB memory.

Information Indicates information of the selected file or folder.

Folder: folder name, creation date (month/day/year), creation time (hour/minute).

File: slide number/number of displayable slides in a folder, file name, creation date (month/day/year), creation time (hour/minute), file size.

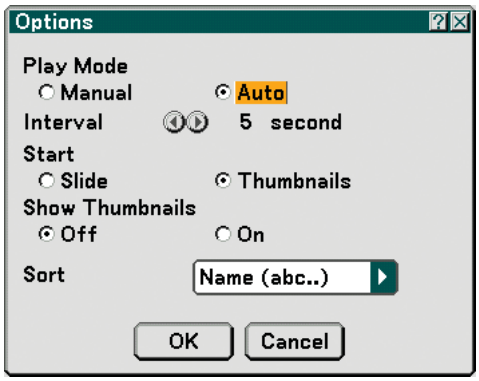
Number of files Indicates number of displayable slides in the selected folder. The maximum number of images recognized as slides within one directory is about 250.

Thumbnail/file name Indicates thumbnails and names contained in a folder.

Cursor Indicates the selected slide.

Scroll bar Used to view folders or files not visible in the window.

Setting Option for Viewer



Play Mode:

Manual Views a slide manually when the Viewer source is selected.

Auto Plays back slides automatically when the Viewer source is selected.

Interval:

Specifies interval time between 5 and 300 seconds.

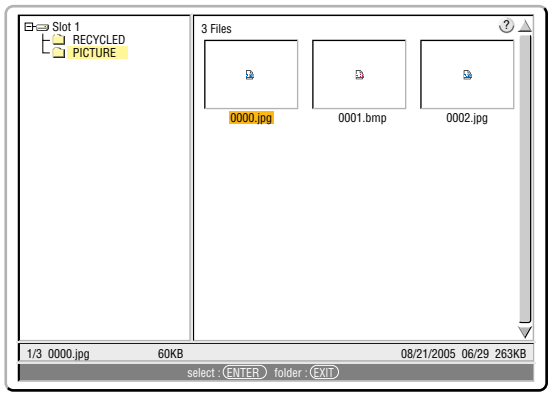
Start:

Specifies start screen when the Viewer source is selected.

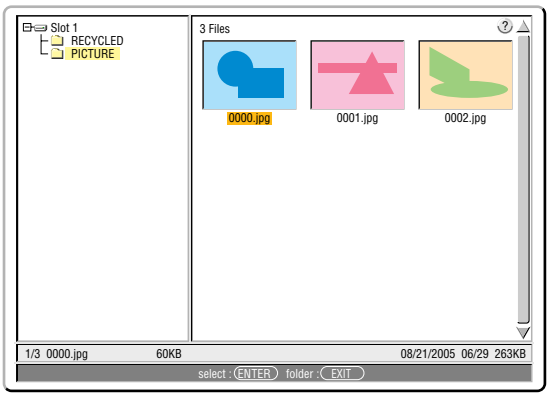
Show Thumbnails:

Selecting the Viewer source will display a list of thumbnails of graphic files stored in the PC card or USB memory when [On] is selected.

[Off]



[On]



Sort:

Rearranges the slides or thumbnails by name, extension, date or size.

NOTE: This setting is not available for the following folders:
** Folders created with the "Output Viewer" feature of Ulead Photo Explorer 8.0 or with Viewer PPT Converter 3.0*

OK/Cancel:

To close the Options menu with saving changes, select [OK] and press the ENTER button.
To close the Options menu without saving changes, select [Cancel] and press the ENTER button.

Exiting Viewer

To exit Viewer, switch to another input such as Computer 1, Computer 2, Computer 3, Component, Video, S-Video or LAN.

* To switch to another input, there are two ways:
* Press the COMPUTER 1, COMPUTER 2, COMPUTER 3, COMPONENT, VIDEO, S-VIDEO or LAN button on the remote control.
* Press the MENU button on the remote control to display the Viewer menu. Press the MENU button again to display the main menu and select the input from the [Source] submenu.

With this function it is possible to switch directly to a slide when the picture of a VCR or computer is being projected. Example: When conducting presentations using a combination of slides and moving pictures from a VCR, etc., it is possible to switch from a Viewer slide to the video picture then back to the Viewer slide simply by using the Viewer button.

NOTE: Even if you switch the current Viewer source to another source, the current slide is retained. When you return back to the Viewer, you will get the slide that has been retained.

Viewing Digital Images

Digital images can be played with the Viewer if the following conditions are met:

- If the image can be stored on an MS-DOS format PC card.
- If the image can be stored in a format supported by the Viewer. With the Viewer, images on the card are searched for in directories and images in JPEG, BMP, non-interlaced GIF or non-interlaced PNG format are recognized as slides.

NOTE: The maximum number of images recognized as slides within one directory is about 250.

❹ Changing Background Logo

You can change the default background logo using the Viewer feature.

NOTE: File size must be 256KB or less. File formats other than JPEG, BMP, non-interlaced GIF or non-interlaced PNG are not available.

Preparation: Store JPEG or BMP files (JPEG, BMP, non-interlaced GIF or non-interlaced PNG files) in a PC card or USB memory inserted into your PC and insert the PC card into the projector's slot or USB memory into the projector's USB port.

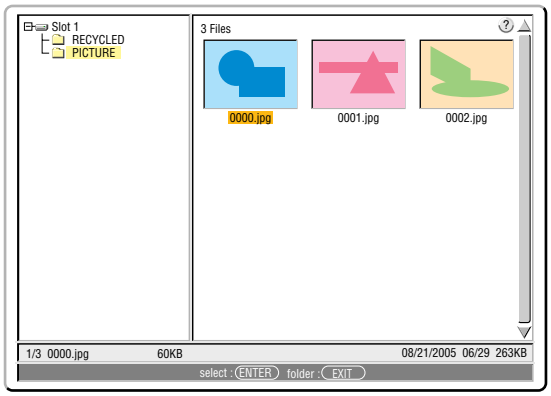
1. Press the VIEWER button on the remote control to display an image.

2. Press the MENU button to display the Viewer menu.



3. Use the ▼ button to select [Thumbnails] and then press the ENTER button.

The Thumbnail screen will be displayed.



NOTE: To change highlight from the Thumbnails screen (right window) to a directory tree (left window) , press the EXIT button. To return highlight to the Thumbnails screen, press the ENTER button.

4. Use ▲▼◀▶ button to select a file (slide) for your background logo.

5. Press the MENU button to display the Viewer menu.

6. Use the ▼ button to select [Logo] and then press the ENTER button.

A confirmation dialog box will be displayed.



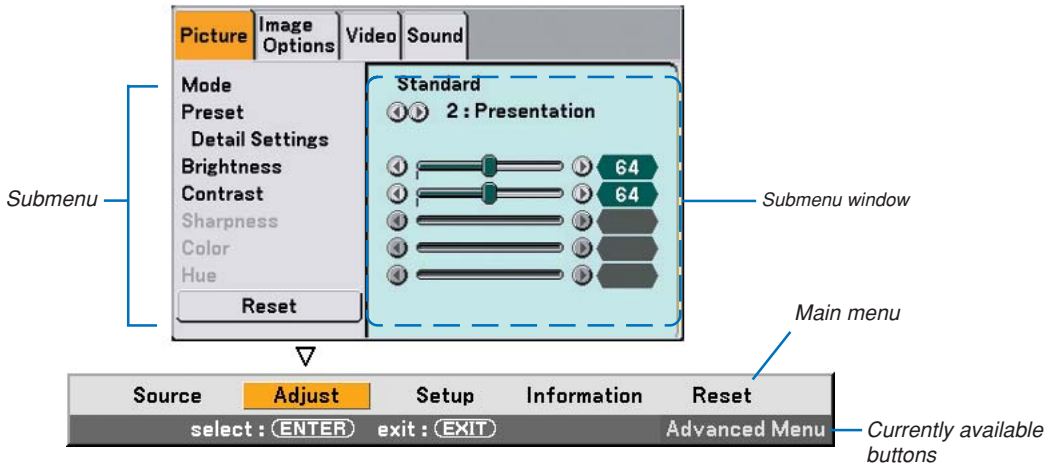
7. Use the ◀ button to select [Yes] and press the ENTER button. This completes changing a logo for the background.

* Once you have changed the background from the NEC logo to another, you cannot return the logo to background even by using [Reset]. To put the NEC logo back in the background logo, repeat the above steps. The NEC logo file is included on the supplied User Supportware 3 CD-ROM (/Logo/NEC_BB_X.JPG).

6. Using On-Screen Menu

❶ Using the Menus

1. Press the MENU button on the remote control or the projector cabinet to display the menu.



NOTE: The commands such as ◀▶, ENTER, EXIT in the gray bar show available buttons for your operation.

2. Press the SELECT ◀▶ buttons on the remote control or the projector cabinet to display the submenu.

3. Press the ENTER button on the remote control or the projector cabinet to highlight the top item or the first tab.

4. Use the SELECT ▲▼ buttons on the remote control or the projector cabinet to select the item you want to adjust or set.

You can use the SELECT ◀▶ buttons on the remote control or the projector cabinet to select the tab you want.

NOTE: You can select a tab only when the tab color is orange.

5. Press the ENTER button on the remote control or the projector cabinet to display the submenu window.

6. Adjust the level or turn the selected item on or off by using the SELECT ▲▼◀▶ buttons on the remote control or the projector cabinet.

Changes are stored until you adjust it again.

7. Repeat steps 2 -6 to adjust an additional item, or press the EXIT button on the remote control or the projector cabinet to quit the menu display.

NOTE: When a menu or message is displayed, several lines of information may be lost, depending on the signal or settings.

❷ Menu tree

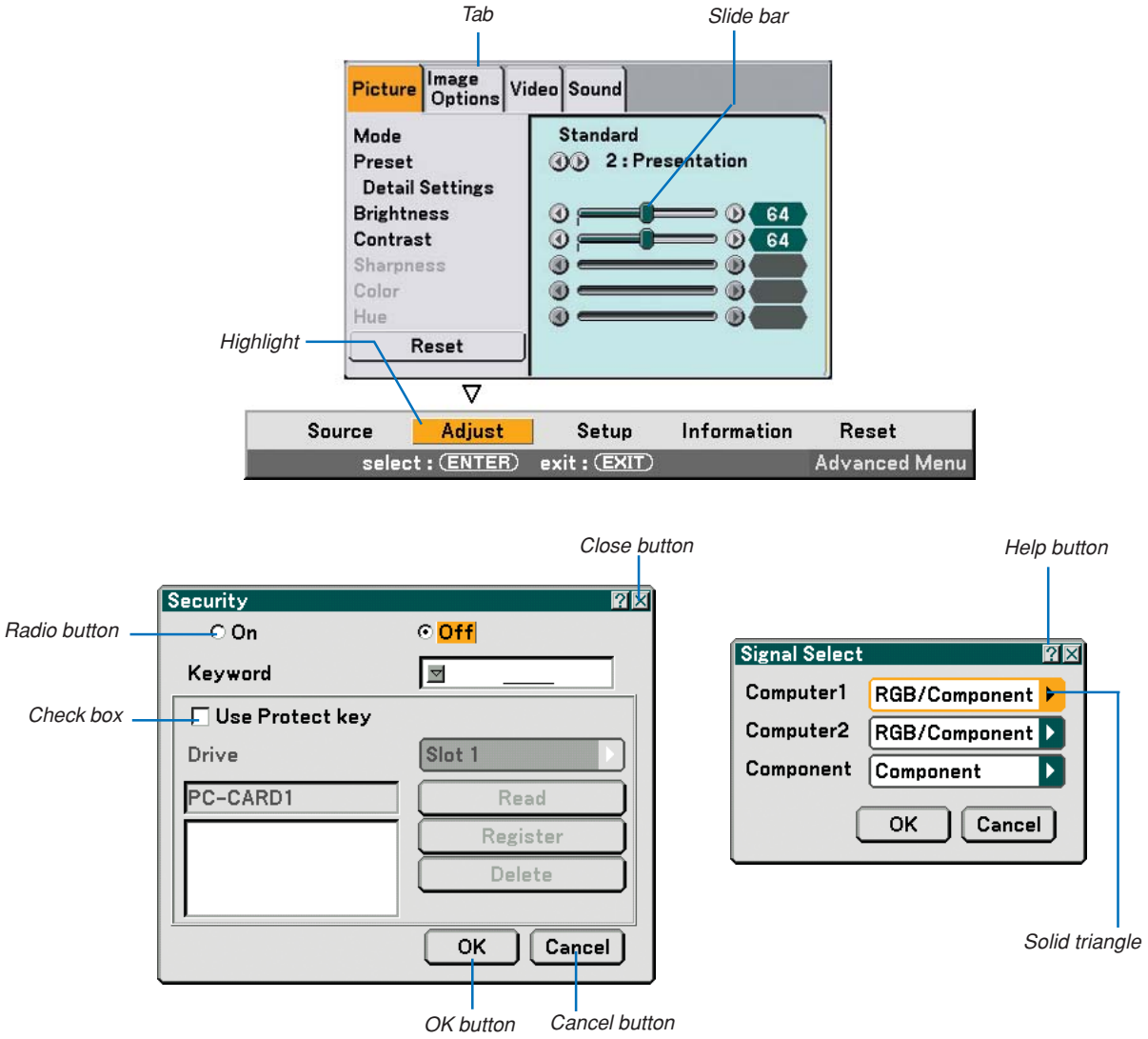
Basic menu items are indicated by shaded area.

Factory default settings are indicated by the gray shaded area.

Menu		Item				
Source		Computer 1, Computer 2, Computer 3, Component, Video, S-Video, Viewer, LAN, Entry List				
Adjust	Picture	Mode	Standard, Professional			
		Preset	1 to 6			
			Detail Settings	General	Reference	High-Bright, Presentation, Video, Movie, Graphic, sRGB
					Gamma Correction	Dynamic, Natural, Black Detail
					Color Temperature	5000, 6500, 7800, 8500, 9300, 10500
				White Balance		Brightness RGB, Contrast RGB
				Color Correction		Red, Green, Blue,Yellow, Magenta, Cyan
		Brightness				
		Contrast	Manual, Auto			
		Sharpness				
		Color				
		Hue				
		Reset				
	Image Options	Clock				
		Phase				
		Horizontal Position				
		Vertical Position				
		Blanking	Top, Bottom, Left, Right			
		Overscan	0%, 5%, 10%			
		Aspect Ratio	4:3	4:3, Letterbox, Wide Screen, Crop		
			16:9	4:3 Window, Letterbox, Wide Screen, 4:3 Fill		
	Video	3D Y/C Separation	Off, On: Still, Normal, Movie			
		Vertical Enhancer	Off, 1, 2, 3			
		Deinterlace	Off, On: Still, Normal, Movie			
		Telecine	Off, On: 2-2/2-3 Auto, 2-2 On, 2-3 On			
		Contrast Enhancement	Off, On, Split, Adjust			
	Sound		Volume, Bass, Treble, Balance, 3D Surround (Off, On)			
Setup	Basic	Keystone	Horizontal, Vertical			
		Cornerstone				
		Wall Color	Off, Blackboard, Blackboard (Gray), Light yellow, Light green, Light blue, Sky blue, Light rose, Pink			
		Lamp mode	Normal, Eco			
		Menu Mode	Basic Menu, Advanced Menu			
		Language	English, Deutsch, Français, Italiano, Español, Svenska, Suomi, Norsk, Nederlands, Türkçe, Polski, Русский, Ελληνικά , Magyar, Português, Čeština , , Dansk, 日本語 , 한국어 , 中文			
	Menu	Color Select	Color1 to 5, Monochrome			
		Display Select	Source: On, Off / Message: On, Off / Time: On, Off			
		Display Time	Manual, Auto 5 sec, Auto 15 sec, Auto 45 sec			
		Background	Blue, Black, Logo			
	Security	Control Panel Lock	Off, On			
		Menu Lock	Off, On			
		Logo Lock	Off, On			
		Security	Off, On, Keyword, Use Protect Key, Drive, Read, Register, Delete			
		PJLink	Off,On			
			Password			

Menu		Item			
Setup	Installation	Orientation	Desktop Front, Ceiling Rear, Desktop Rear, Ceiling Front		
		Screen	Screen Type: 4:3, 16:9 / Position		
		LAN Mode	Built-in	Profiles:	Profile 1, Profile 2
				DHCP:	On, Off
				IP Address	
				Subnet Mask	
				Gateway	
				DNS Configuration	
				Reconnect	
			PC Card	Profiles:	Easy Connection, Profile 1, Profile 2
				DHCP:	On, Off
				IP Address	
				Subnet Mask	
				Gateway	
				DNS Configuration	
				Advanced:	Network Type: Site Survey, SSID, Mode, Channel WEP: WEP, Key Select, Key 1-4
				Reconnect	
			Domain	Host Name	
				Domain Name	
			Mail	Alert Mail:	On, Off
				Sender's Address	
				SMTP Server Name	
				Recipient's Address 1-3	
				Test Mail	
		Projector Name			
		Communication Speed	4800bps, 9600bps, 19200bps, 38400bps		
		Date, Time Preset	Date: Month / Day / Year, Time: (H / M)		
		Remote Sensor	Front / Back, Front, Back		
	Options	Auto Adjust	Off, Normal, Fine		
		Auto Start	Off, On		
		Power Management	Off, 0:05, 0:10, 0:20, 0:30		
		Fan Mode	Auto, High		
		Default Source Select	Last, Auto, Select (Computer1, Computer2, Computer3, Component, Video, S-Video, Viewer, LAN)		
		Signal Select	Computer1	RGB/Component, RGB, Componet, Scart	
			Computer2	RGB/Component, RGB, Componet	
			Component	Component, Video	
		Color System	Component (Video), Video, S-Video		
		S-Video Mode Select	Off, S2		
		OUT Terminal	Last, Computer1, Computer2, Component		
	Tools	ChalkBoard			
		Off Timer	Off, 0:30, 1:00, 2:00, 4:00, 8:00, 12:00, 16:00		
		Program Timer			
		Mouse	Mouse Pointer: Pointer 1 to Pointer 9 / Button: Right Hand, Left Hand Sensitivity: Fast, Medium, Slow		
Information	Usage Time	Lamp Life Remaining, Lamp Hours Used, Filter Hours Used, Projector Hours Used			
	Source Page1	Input Terminal, Signal Type, Video Type, Source Name, Entry No.			
	Source Page2	Horizontal Frequency, Vertical Frequency, Sync Type, Sync Polarity, Scan Type			
	LAN Built-in	IP Address, Subnet Mask, Gateway, MAC Address			
	LAN PC Card	IP Address, Subnet Mask, Gateway, MAC Address			
	LAN Wireless	SSID, Mode, WEP, Channel, Signal Level			
	Version	Model, Serial Number, Firmware, Data			
Reset		Current Signal, All Data, All Data (Including Entry List), Clear Lamp Hours, Clear Filter Hours			

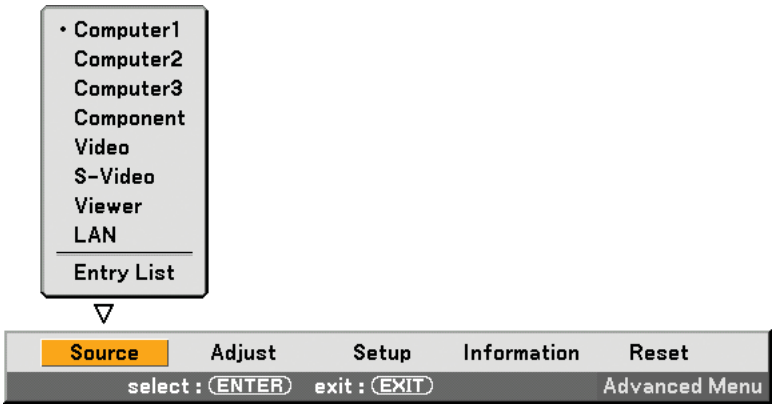
❸ Menu Elements



Menu windows or dialog boxes typically have the following elements:

Highlight..... Indicates the selected menu or item.
Solid triangle Indicates further choices are available. A highlighted triangle indicates the item is active.
Tab Indicates a group of features in a dialog box. Selecting on any tab brings its page to the front.
Radio button Use this round button to select an option in a dialog box.
Check box Place a checkmark in the square box to turn the option On.
Slide bar Indicates settings or the direction of adjustment.
OK button Press to confirm your setting. You will return to the previous menu.
Cancel button Press to cancel your setting. You will return to the previous menu.
Close button Click to close the window and saving changes. (USB mouse only)
Help button Indicates that help about that feature is available (USB mouse only). Press the HELP button on the remote control to display help.

❹ Menu Descriptions & Functions [Source]



Computer 1 and 2

Selects the computer connected to your COMPUTER 1 or COMPUTER 2 input connector signal.

NOTE: An optional component cable (Component V or ADP-CV1 cable) is needed for a component signal.

Computer 3 (RGB Digital)

Selects the computer connected to your COMPUTER 3 (DVI-D) connector.

Component

Selects what is connected to your COMPONENT IN (Y, Cb/Pb, Cr/Pr).

Video

Selects what is connected to your VIDEO input-VCR, laser disc player, DVD player or document camera.

S-Video

Selects what is connected to your S-VIDEO input-VCR, DVD player, or laser disc player.

NOTE: A frame may freeze for a brief period of time when a video is played back in fast-forward or fast-rewind with a Video or S-Video source.

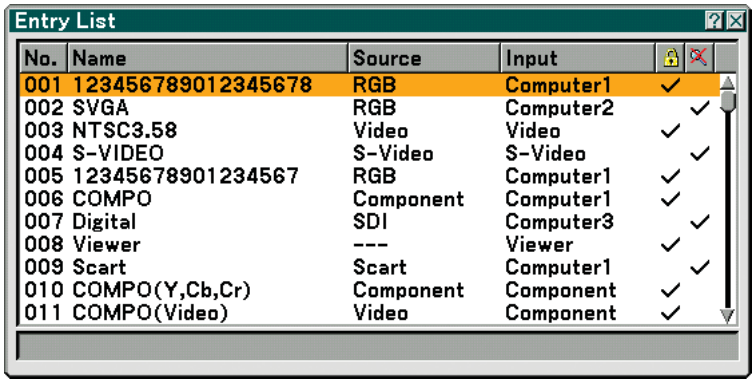
Viewer

This feature enables you to make presentations using a PC card that contains captured images and slides created with the exclusive Ulead Photo Explorer 8.0 contained on the CD-ROM. See the supplied Wired and Wireless Network Setup Guide for installing the Ulead Photo Explorer 8.0.
See page 60 for viewing slides.

LAN

Selects a signal from the LAN port (RJ-45) or the optional wireless LAN card plugged into the projector's card slot.

[Entry List]



Use the SELECT ▲▼ buttons on your remote control or the projector cabinet to select the signal and press the ENTER button on the remote control or the projector cabinet to display the [Entry Edit Command] screen.

Entering the Currently Projected Signal into the Entry List

1. ***Display the Entry List.***
2. ***Use the SELECT ▲ or ▼ button on your remote control or the projector cabinet to select any number and press the ENTER button on the remote control or the projector cabinet to display the [Entry Edit Command] screen.***
3. ***Use the SELECT ◄ or ► button to select [Store] and press the ENTER button.***

Using the [Entry List]

Making any adjustments to the current picture will automatically register its adjustments to the [Entry List]. The registered signal can be loaded any time from the [Entry List].

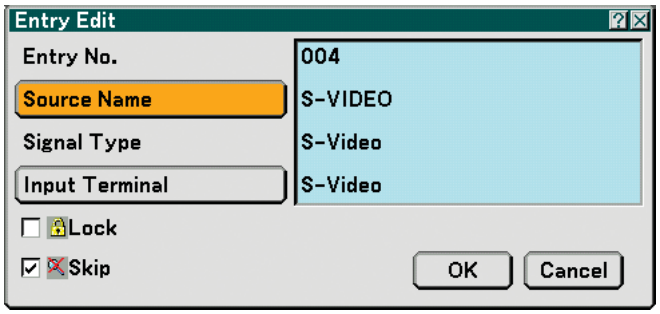
NOTE: Up to 100 presets can be registered except settings on the Picture.

[Entry Edit Command]



You can edit signals on the [Entry List].

Load Enables you to select a signal from the list.
Store Enables you to store the currently projected signal.
Cut Enables you to remove a selected signal from the list and place it on the "clipboard" in the projector.
Copy Enables you to copy a selected signal from the list and place it on the "clipboard" in the projector.
Paste Enables you to paste the signal placed on the "clipboard" to any other line of the list.
Edit Enables you to change source names.



Source Name:

Enter a signal name. Up to 18 alphanumeric characters can be used.

Input Terminal:

Change the input terminal.

Lock:

Set so that the selected signal cannot be deleted when "All Delete" is executed. After executing [Lock], the changes cannot be saved.

Skip:

Set so that the selected signal will be skipped during auto search.

When complete, select OK and press ENTER. To exit without storing the setting, select Cancel. Select [Source Name] and press ENTER to display the Source Name Edit window. You can change source name on this window. Press ▼ to display the software keyboard, which you can enter alphanumeric characters. See page 128 for the key function of the software keyboard.

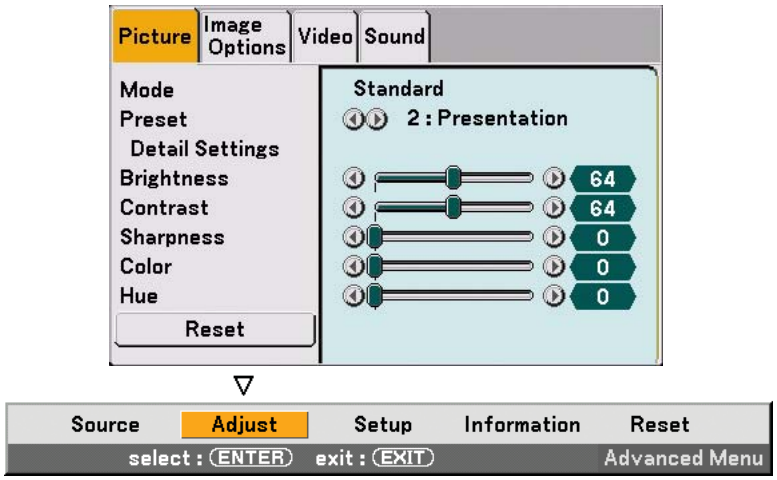
All Delete This feature enables you to delete all the registered signals in the Entry List.

The following buttons are not available for the currently projecting signals:

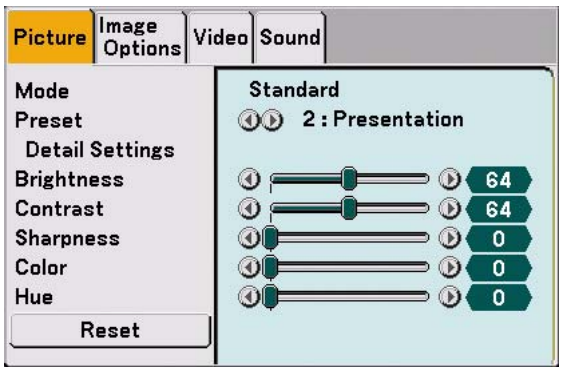
1) The Cut and Paste buttons on the [Entry Edit Command] screen
2) The Input Terminal button on the [Entry Edit] screen

NOTE: When all the signals in the [Entry List] are deleted, the currently projected signal will be also deleted except locked signals.

❺ Menu Descriptions & Functions [Adjust]



[Picture]



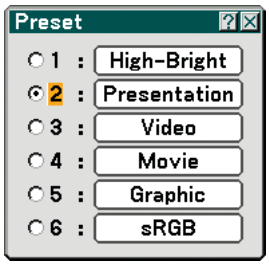
[Mode]

This function allows you to determine how to save settings for [Detail Settings] of [Preset] for each input.

Standard : Saves settings for each item of [Preset] (Preset 1 through 6)

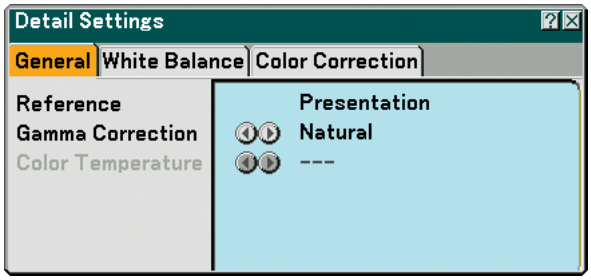
Professional : Saves all the settings of [Picture] for each input.

[Preset]



This option allows you to adjust neutral tint for yellow, cyan or magenta. There are six factory presets optimized for various types of images, you can set user adjustable settings.

[Detail Settings]



This will provide you with three pages of menus that provide more detailed settings.

[General]
Selecting Reference Setting [Reference]
This feature allows you to use color correction or gamma values as reference data to optimize for various types of images. You can select one of the following six settings.

High-Bright Recommended for the use in a brightly lit room.
Presentation Recommended for making a presentation using a PowerPoint file.
Video Recommended for regular picture such as TV program.
Movie Recommended for movies.
Graphic Recommended for graphics.
sRGB Standard color values.

Selecting Gamma Correction Mode [Gamma Correction]
Each mode is recommended for:

Dynamic Creates a high-contrast picture.
Natural Natural reproduction of the picture.
Black Detail Emphasizes detail in dark areas of the picture.

Adjusting Color Temperature [Color Temperature]
This feature adjusts the color temperature using the slide bar.
Increase the color temperature for more bluish white; decrease it for more reddish white.

NOTE:
- *When [Presentation] or [High-Bright] is selected in [Reference], this function is not available.*
- *When [White Balance] settings has been changed, the color temperature value on screen does not reflect the real color temperature.*

[White Balance]

Adjusting White Balance [White Balance]
This allows you to adjust the white balance. Brightness for each color (RGB) is used to adjust the black level of the screen; Contrast for each color (RGB) to adjust the white level of the screen.

[Color Correction]

Selecting Color Correction [Color Correction]
Adjusts red, green, blue, yellow, magenta and cyan each independently to correct the tint of the whole screen.

[Brightness]

Adjusts the brightness level or the back raster intensity.

[Contrast]

Adjusts the intensity of the image according to the incoming signal.
You have two options: Manual and Auto.

NOTE: The Auto Contrast function will not work when the menu or a message is displayed

[Sharpness]

Controls the detail of the image for Video (not valid for RGB and digital signals).

[Color]

Increases or decreases the color saturation level (not valid for RGB and digital signals).

[Hue]

Varies the color level from +/- green to +/-blue. The red level is used as reference. This adjustment is only valid for Video, Component and TV standard inputs (not valid for RGB and digital signals).

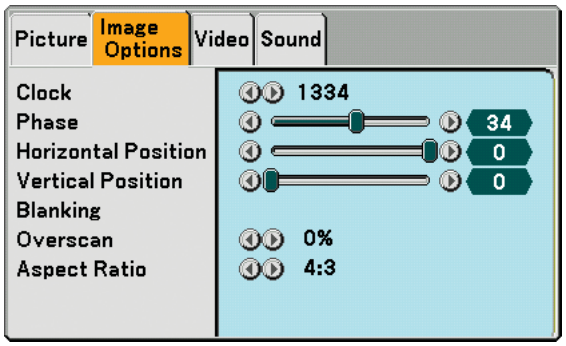
Input signal	Brightness	Contrast	Sharpness	Color	Hue
Computer (RGB analog)	Yes	Yes	No	No	No
Computer (RGB digital)	Yes	Yes	No	No	No
Component	Yes	Yes	Yes	Yes	Yes
Video, S-Video	Yes	Yes	Yes	Yes	Yes
Viewer, LAN	No	No	No	No	No

Yes=Adjustable, No=Not adjustable

[Reset]

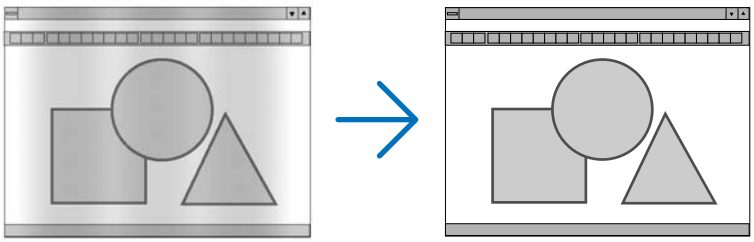
The settings and adjustments for [Picture] will be returned to the factory settings with the exception of the following; Preset numbers and [Reference] within the [Detail Settings] screen when [Standard] is selected in [Mode].
The settings and adjustments under [Detail Settings] within the [Preset] screen that are not currently selected will not be reset.

[Image Options]



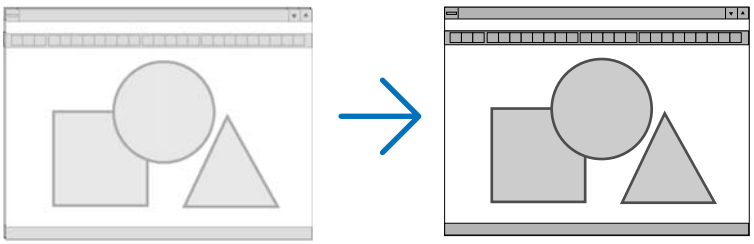
Adjusting Clock and Phase [Clock/Phase]

This allows you to manually adjust Clock and Phase.



Clock Use this item to fine tune the computer image or to remove any vertical banding that might appear. This function adjusts the clock frequencies that eliminate the horizontal banding in the image.

This adjustment may be necessary when you connect your computer for the first time.

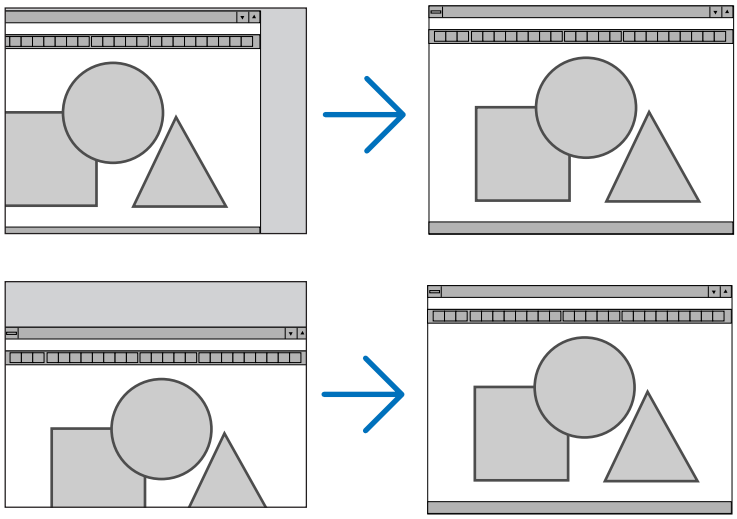


Phase Use this item to adjust the clock phase or to reduce video noise, dot interference or cross talk. (This is evident when part of your image appears to be shimmering.)

Use [Phase] only after the [Clock] is complete.

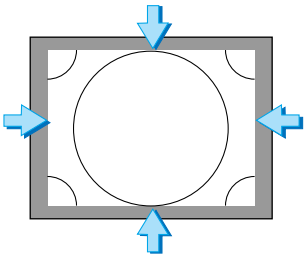
Adjusting Horizontal/Vertical Position [Horizontal/Vertical Position]

Adjusts the image location horizontally and vertically.



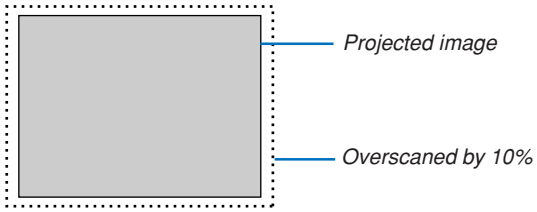
Masking Unwanted Area [Blanking]

This feature allows you to mask any unwanted area of the screen image.



Selecting Overscan Percentage [Overscan]

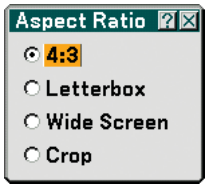
Select overscan percentage (0%, 5% and 10%) for signal.



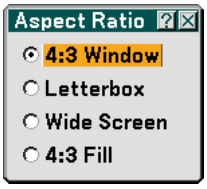
NOTE: You cannot select [0%] for some input signals.

Selecting Aspect Ratio [Aspect Ratio]

Screen Type 4:3



Screen Type 16:9



Aspect Ratio allows you to select the best Aspect mode to display your source image.
When screen type 4:3 is selected for the source, the following selections will display:

4:3 Standard 4:3 aspect
Letter Box Reduced to display the true aspect with black borders on top and bottom
Wide Screen Left & Right stretched with black borders on top and bottom
Crop Left & Right stretched. Left & Right sides cut. Available for 4:3 only.

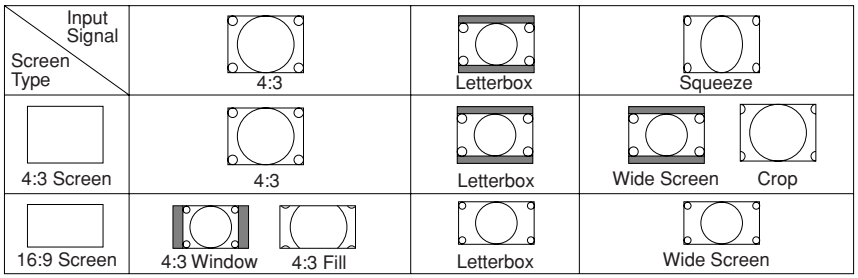
When screen type 16:9 is selected for the source, the following selections will display:

4:3 Window Reduced to display the true aspect with black borders on right and left
Letter Box Standard 16:9 aspect
Wide Screen Left and right stretched to display the true aspect
4:3 Fill Stretched to display in 16:9 aspect ratio

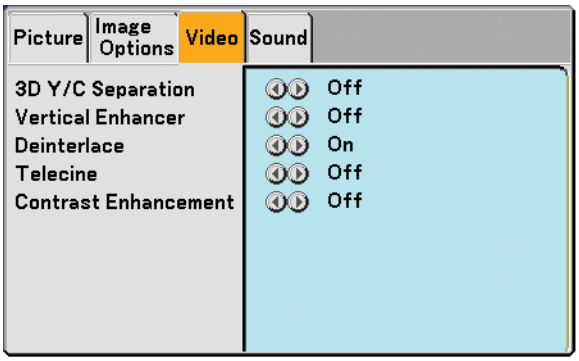
NOTE: You can adjust image position vertically for a source with black borders on top and bottom. (→ page 88)

NOTE: Please note that using this projector for the purpose of commercial gain or the attraction of public attention in a venue such as a coffee shop or hotel and employing compression or expansion of the screen image with a [Aspect Ratio] or [Screen] setting may raise concern about the infringement of copyrights which are protected by copyright law.

NOTE: During 3D Reform adjustment, [Aspect Ratio] may not be available.
Should this happen, first reset the 3D Reform data and then do setting again. Second repeat the 3D Reform adjustment.
Changing the aspect ratio can limit 3D Reform in its adjustable range.



[Video]



Turning On/Off 3 Dimension Separation [3D Y/C Separation]

This function turns on or off the 3 dimensional separation feature.

Off Turns off the function.

On Still Recommended for a still image.

Normal The projector detects and corrects the image automatically.

Movie Recommended for a moving image.

TIP: *When the image is poor quality, turn on [3D Y/C Separation]. If there is still poor quality, try turning off [Deinterlace] or try turning off [3D Y/C Separation] and select [Normal] in [Deinterlace].*

NOTE: This feature is available for NTSC3.58 of Video signal only.

Setting Vertical Edges [Vertical Enhancer]

This function enhances the vertical edges around objects in the image.

NOTE: This function is not available for an RGB, HDTV and Component signal.

Selecting Interlace or Deinterlace [Deinterlace]

This function allows you to select between "Interlace" and "Deinterlace".

Off Project the interlaced signal.

On Still Select when a still image is displayed. When this option is selected for a moving image, jitter or artifacts can be seen.

Normal The projector automatically determines a still or moving image to display a clear picture. If selecting [Normal] causes excess jitter or artifacts, select [Movie].

Movie Select when a moving image is displayed. This will eliminate jitter and artifacts in a moving image. This option is available only for SDTV.

Setting Telecine Mode [Telecine]

Use 3:2 pull down correction to eliminate jitter and artifacts in video.

NOTE: This feature is available only when [Deinterlace] is turned on and an SDTV signal is selected.

Off Turns off the Telecine mode.
On 2-2/2-3 Auto Detects pull-down correction method.
2-2 On Uses 2-2 pull-down correction method
2-3 On Uses 2-3 pull-down correction method

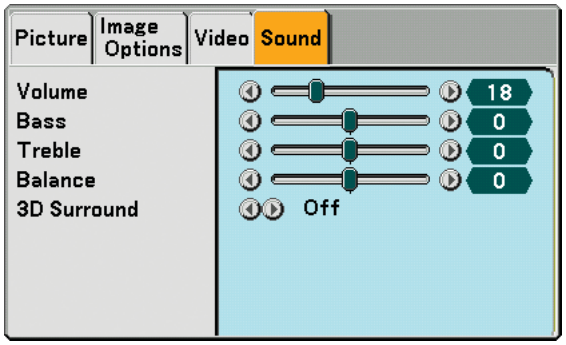
Setting Contrast Enhancement [Contrast Enhancement]

This function provides improvement of contrast using a proprietary detail enhancement technology.

NOTE: This function is not available for Viewer or LAN.

Off Turns off the Contrast Enhancement mode.
On Turns on the Contrast Enhancement mode.
Split Turns on or off to show the effect of the Contrast Enhancement mode.
Adjust When the Contrast Enhancement mode is turned on or when [Split] is selected, you can adjust the Contrast Enhancement level.

[Sound]



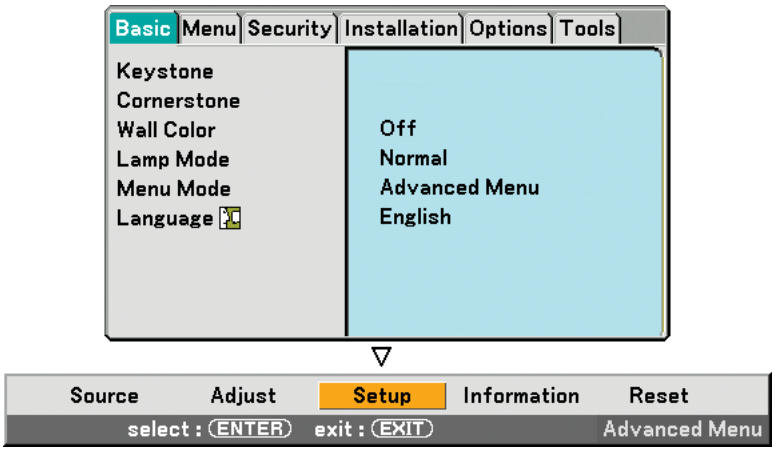
Controlling Sound [Volume/Bass/Treble/Balance]

Adjusts the volume, bass and treble level, left and right balance of the projector speaker and AUDIO OUT (Stereo Mini Jack).

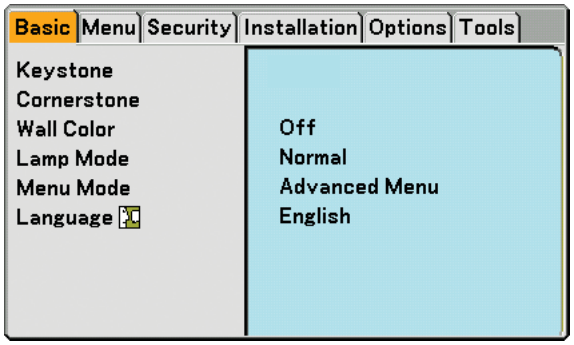
Enabling 3D Surround [3D Surround]

Turn on or off the 3D surround effect.
If the AUDIO OUT stereo mini jack of the projector is connected to an external equipment, adjusting the sound on the external equipment can cause sound to be distorted or cracked, depending on the bass, treble or 3D Surround adjustment. If this happnes, return the adjustments of the projector to the factory default (Bass:0, Treble: 0, 3D Surround: Off).

❻ Menu Descriptions & Functions [Setup]



[Basic]

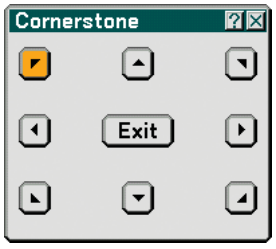


Selecting Keystone Mode [Keystone]

This feature allows you to correct keystone distortion.
Selecting this item will display the Keystone setting menu.
You can correct vertical distortion manually from the menu. (→ page 31)
Changes will be saved even when you turn off the projector.

NOTE: When [Cornerstone] is selected, [Keystone] is not available.

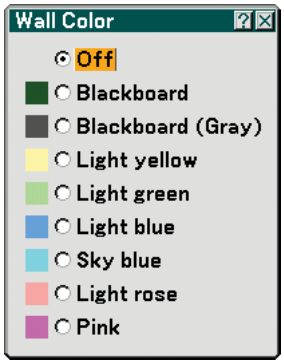
Selecting Cornerstone Mode [Cornerstone]



This option allows you to correct trapezoidal distortion.
Selecting this item will display the Cornerstone adjustment screen. (→ page 41)

NOTE: When [Keystone] is selected, [Cornerstone] is not available.

Using the Wall Color Correction [Wall Color]



This function allows for quick adaptive color correction in applications where the screen material is not white.
The following nine options are available.

Setting Lamp Mode to Normal or Eco [Lamp Mode]

This feature enables you to select two brightness modes of the lamp: Normal and Eco modes. The lamp life can be extended by using the Eco mode. Selecting Eco mode decreases fan noise compared to in Normal mode.

Lamp Mode	Description	Status of LAMP indicator
Normal Mode	This is the default setting (100% Brightness).	Off
Eco Mode	Select this mode to increase the lamp life (approx. 80% Brightness (light output)	Steady Green light

NOTE: If the projector is overheated in Normal mode, there may be a case where the Lamp mode will be forced into the Eco mode to protect the projector. This mode is called "forced Eco mode".
When the projector is in forced Eco mode, the picture brightness decreases. The LAMP indicator's steady green light indicates the lamp is in Eco mode.
When the projector comes back to normal temperature, the Lamp mode returns to Normal mode.
In the forced Eco mode, changing [Lamp mode] setting in the menu will not affect the actual lamp mode.

Selecting Menu Mode [Menu Mode]

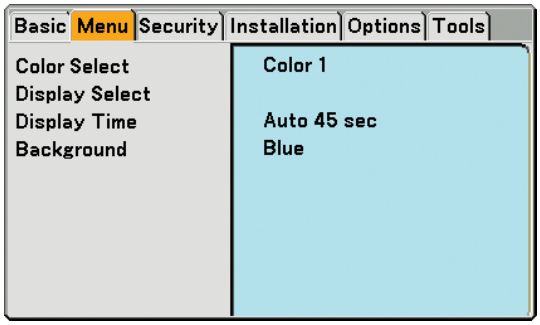
This feature allows you to select two menu modes: Basic Menu and Advanced Menu.

Basic Menu This is the basic menu that contains minimum essentials of menus and commands.
Advanced Menu This is the menu that contains all the available menus and commands.

Selecting Menu Language [Language]

You can choose one of 21 languages for on-screen instructions.

[Menu]



Selecting Menu Color [Color Select]

You can choose a color for the menu.

Turning On / Off Source Display, Message and Time [Display Select]

Source This option turns on or off input name display such as Computer 1, Computer 2, Computer 3, Component, Video, and No Input to be displayed on the top right of the screen.

Message This option turns on or off messages. Even though selecting [Off], the following message will appear.

• "Projector is locked" When the projector security is unlocked, the message will disappear.

Time This option turns on or off the current time displayed on the top left of the screen.

NOTE: The source and current time will be displayed for the time specified in [Display Time]. When [Manual] is selected in [Display Time], the source and current time will be always displayed.

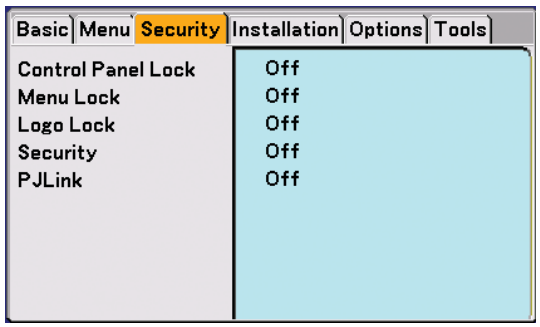
Selecting Menu Display Time [Display Time]

This option allows you to select how long the projector waits after the last touch of a button to turn off the menu. The preset choices are [Manual], [Auto 5 sec], [Auto 15 sec], and [Auto 45 sec]. The [Auto 45 sec] is the factory preset.

Selecting a Color or Logo for Background [Background]

Use this feature to display a blue/black screen or logo when no signal is available. The default background is blue. You can change the logo screen using the Viewer feature. (→ page 64)

[Security]



Disabling the Cabinet Buttons [Control Panel Lock]

This option turns on or off the Control Panel Lock function.

NOTE:

- *This Control Panel Lock does not affect the remote control functions.*
- *When the control panel is locked, pressing and holding the EXIT button on the projector cabinet for about 10 seconds will change the setting to [Off].*

Setting a Password [Menu Lock] / [Logo Lock]

A password can be set for your projector to avoid operation by an unauthorized person.
When [Menu Lock] is set, changing the menu from Basic to Advanced will display the Password input screen.

When [Logo Lock] is set, doing any one of the following two operations will display the Password input screen.

- Changing the background from or to [Logo]
- Changing the logo data in a PC card or USB memory.

[Entry]

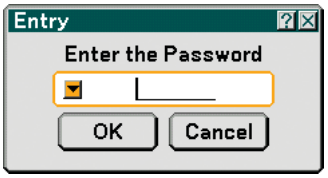




To assign your password:

NOTE: Up to 15 alphanumeric characters can be assigned.

1. ***Type a password.***
 Select [On] and press the ENTER button.
 The [Enter the Password] screen will be displayed.

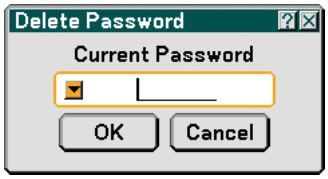


 Make sure that ▼ is highlighted and then press the ENTER button.
 The Software keyboard appears. Use the Software keyboard to type a password and then highlight [OK] on the [Enter the Password] screen and press the ENTER button.
 The [Confirm Password] screen will be displayed.

2. ***Type the same password again. Highlight [OK] on the [Enter the Password] screen and press the ENTER button.***
 Your password will be assigned.

[Delete]
To delete your password:

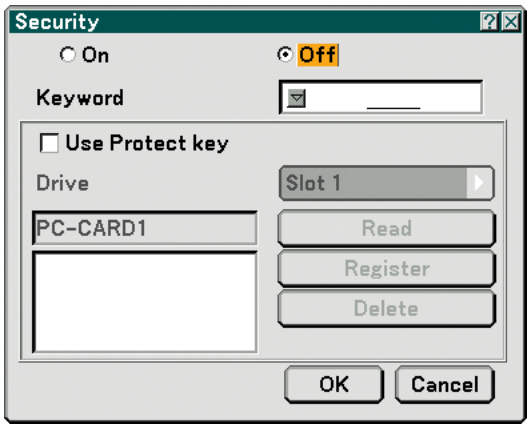
1. ***Select [Off] and press the ENTER button. The [Current Password] screen will be displayed.***



2. ***Use the Software keyboard to type your password. Highlight [OK] on the [Current Password] screen and then press the ENTER button.***
 Your password will be deleted.

[Security]

The Security function enables you to protect your projector so that the projector will not project a signal unless you enter a keyword. There is also an option to lock the projector by using a registered PC card* or USB memory* as a protect key. Once you have registered your PC card as a protect key, you are required to insert the registered PC card into the PC card slot of the projector each time you turn on the projector. You can enable the Security function by using a keyword only.



* The projector does not support NTFS formatted flash memory card or USB memory device.

Be sure to use a flash memory card or USB memory device formatted with the FAT32, FAT16 or FAT file system.

To format your flash memory card or USB memory device in your computer, refer to the document or help file that comes with your Windows.

On/Off This turns the Security function on or off.

Keyword Enter an appropriate keyword when you use the Security function. (Up to 10 characters can be used.) The Security function is available only when your keyword is entered.

Use Protect key Check this box to lock your projector when using a PC card. To use a keyword without a PC card, do not check this box.

Drive Switches between PC Card slot and USB port (type A).

Read Reads data from a PC card.

Register Registers data from the PC card. The Security function is not available unless at least one PC card is registered. (if the [Use Protect key] check box is selected) Up to 5 PC cards can be registered.

Delete Deletes data of a registered PC card.

To set up a keyword to enable the Security function without using a registered PC card.

1. Use the SELECT ▲ or ▼ button to select [Keyword] and use the software keyboard to enter a keyword.

NOTE: Please make a note of your keyword.

2. Use the SELECT ▲ or ▼ button to select [Off] and then use the SELECT ◄ or ► to select [On].

3. Use the SELECT ▲ or ▼ button to select [OK] , then press the ENTER button.

The [Are you sure?] message will appear.

4. Use the SELECT ◄ or ► button to select [Yes] and press the ENTER button.

The Security function takes effect.

To register a PC card or USB memory device as a protect key.

Preparation: Insert the PC card into the PC card slot of the projector or insert the USB memory device into the USB port (type A) of the projector.

1. ***Use the SELECT ▲ or ▼ button to select [Use Protect Key] and press the ENTER button.***
2. ***Use the SELECT ▲ or ▼ button to select [Read] and press the ENTER button.***
 Data of the PC card will be read into the projector.
3. ***Use the SELECT ▲ or ▼ button to select [Register] and press the ENTER button.***
 Downloaded data will be registered and be displayed in the list window.
4. ***Use the SELECT ▲ or ▼ button to select [Keyword] and use the software keyboard to enter a keyword.***

NOTE: Please make a note of your keyword.

5. ***Use the SELECT ▲ or ▼ button to select [Off] and then use the SELECT ◄ or ► to select [On].***
6. ***Use the SELECT ▲ or ▼ button to select [OK] , then press the ENTER button.***
 The [Are you sure?] message will appear.
7. ***Use the SELECT ◄ or ► button to select [Yes] and press the ENTER button.***
 The Security function takes effect.

To turn on the projector when Security is enabled (when using your keyword only).

1. ***Press and hold the POWER button for a minimum of two seconds.***
 The projector will be turned on and display a message to the effect that the projector is security-protected.
2. ***Press the MENU button.***
 The Release Code input screen will be displayed.
3. ***Enter your keyword in the Release Code input screen.***
 You can view the projected image.

NOTE: Do not forget your keyword. However, if you forget your keyword, Dukaneor your dealer will provideyou with your Release Code. See more information at the end of this section.

To turn on the projector when Security is enabled (when using PC card or USB memory device as a protect key).

Preparation: Insert the registered PC card into the PC card slot of the projector or insert the registered USB memory device into the USB port (type A) of the projector.
Press and hold the POWER button for a minimum of two seconds.
The projector will turn on and then recognize the PC card or USB memory device. Once the image has been projected, it will stay on without the PC card or USB memory device.

- *The projector does not support NTFS formatted PC card or USB memory device.*
 Be sure to use a PC card or USB memory device formatted with the FAT32, FAT16 or FAT file system.
 To format your PC card or USB memory device in your computer, refer to the document or help file that comes with your Windows.
- *When the projector is turned on, if the registered PC card or USB memory device is not inserted into the projector, no signal will be displayed with a message to the effect that the projector is security-protected. To turn off the security protection, insert the registered PC card or USB memory device into the projector.*

- *The security disable mode is maintained until the main power is turned off (by setting the main power switch to "O" or unplugging the power cord). In the following cases you will be asked to check the protect key or input the keyword:*

 (1) When [OK] is selected at an image for which security is set and the power is turned off then back on

 (2) When the main power is turned off then back on while the security function is enabled

 (3) When you attempt to display an image for which security is set while the security function is enabled
- *Blanks (spaces) cannot be used in the Keyword section.*

To delete PC card data you registered.

1. ***Use the SELECT ▲ or ▼ button to select [Delete] and use the SELECT ◄ button to select the list window.***
2. ***Use the SELECT ▲ or ▼ button to select the information on the PC card or USB memory device you wish to delete.***
3. ***Press the SELECT ► button to select [Delete] and press the ENTER button.***

The information on the PC card or USB memory device will be deleted.

If you've lost your registered PC card, proceed as follows:

1. ***Press and hold the POWER button for a minimum of two seconds.***

 The projector will be turned on and display a message to the effect that the projector is security-protected.
2. ***Press the MENU button.***

 The Release Code input screen will be displayed as well as your Request Code (24 alphanumeric characters).

NOTE: Your dealer will provide you with your Release Code in exchange for your registered keyword and Request Code. See more information at the end of this section.

3. ***Enter your Release Code in the Release Code Input screen.***

 The security protection will be turned off.

NOTE:
- *Some brands of PC cards or USB memory devices cannot be used as a protect key.*
- *You should register one or more PC cards or USB memory devices in case your registered PC card or USB memory device is damaged or stolen. Up to 5 pieces can be registered.*
- *Once the registered PC card or USB memory device has been formatted, the PC card or USB memory device cannot be recognized as your registered protect key.*

The Security will not be disabled by using [Reset].

NOTE:
For additional information visit:
US : http://www. dukcorp.com/av

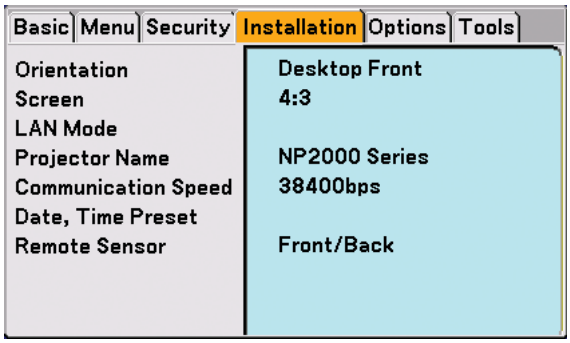
Using PJLink

This option allows you to set a password when you use the PJLink feature.
On/Off: Enable or disable the password.
Password: Enter a password (up to 32 characters)

NOTE: What is PJLink?
PJLink is a standardization of protocol used for controlling projectors of different manufacturers. This standard protocol is established by Japan Business Machine and Information System Industries Association (JBMIA) in 2005.
The projector supports all the commands of PJLink Class 1.

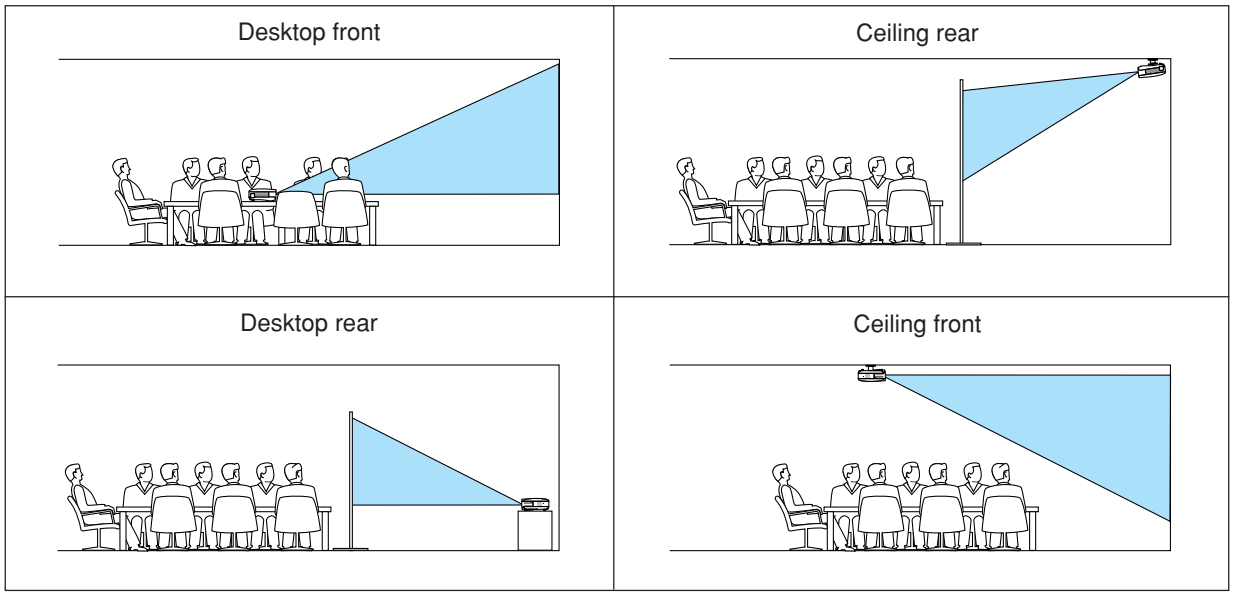
Setting of PJLink will not be affected even when [Reset] is done from the menu.

[Installation]



Selecting Projector Orientation [Orientation]

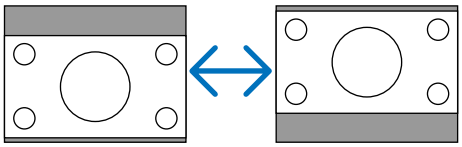
This reorients your image for your type of projection. The options are: desktop front projection, ceiling rear projection, desktop rear projection, and ceiling front projection.



Selecting Aspect Ratio and Position for Screen [Screen]

Screen Type Select one of two options: 4:3 Screen or 16:9 Screen for the screen to be used. See also [Aspect Ratio].
(→ page 77)

Position This feature allows you to adjust the vertical position of the image when 16:9 has been selected for the screen type.
When 16:9 has been selected there is black area above and below the image.



NOTE: This option is available only when [16:9] is selected in [Screen Type].

NOTE:

- *After changing the screen type, check the setting of [Aspect Ratio] in the menu. (→page 77)*
- *[Position] is not available when [4:3] is selected for [Screen Type] or when [Letter Box] is selected for [Aspect Ratio].*
- *During [Keystone] or [Cornerstone] adjustment, [Screen Type] or [Position] is not available. To make available, first reset the adjustments for [Keystone] or [Cornerstone] and then make settings for [Screen Type] or [Position]. Finally make adjustments for [Keystone] or [Cornerstone] again. Changing [Screen Type] or [Position] may limit [Keystone] or [Cornerstone] in its adjustable range.*

[LAN Mode]

Setting LAN Mode

This feature allows you to set various setting items when the projector is used on your network.

CAUTION

- Consult with your network administrator about these settings.
- Connect a LAN cable (Eathernet cable) to the LAN port (RJ-45). (→ page 19)
- For wireless LAN connection, use the NEC optional wireless LAN card (NWL-100*).
 * Last digit of the model code varies depending on which country you live in. For more information, visit our Website.
- To use wireless LAN, insert the NEC optional wireless LAN card (NWL-100*) into the PC Card slot.
 (→ "Inserting and Removing a PC Card" on page 21)

Hints on How to Set Up LAN Connection

To configure the projector to communicate on the network using the LAN port (RJ-45) or the optional wireless LAN card:

1. ***Select the [Built-in] tab for the LAN port (RJ-45) or the [PC Card] tab for the optional wireless LAN card.***
2. ***On the [Built-in] tab or the [PC Card] tab, select a number from the [Profiles] list for your LAN settings.***
 Two settings can be stored in memory for each the LAN port and the wireless LAN card respectively.
3. ***On the [Built-in] tab or the [PC Card] tab, turn on or off [DHCP], specify IP address, Subnet Mask, Gateway and DNS Configuration. Select [OK] and press the ENTER button.***
 (→ page 90, 91)

To recall the settings from memory:
After selecting the [Built-in] tab or the [PC Card] tab, select the number from the [Profiles] list.
Select [OK] and press the ENTER button. (→ page 90, 91)

To connect a DHCP server:
On the [Built-in] tab or the [PC Card] tab, select [DHCP] and press the ENTER button. A check mark will be placed.
Select again and press the ENTER button. The check box will be cleared.
When setting an IP address without using a DHCP server, clear the check box for [DHCP]. (→ page 90, 91)

To set only for wireless LAN (Network Type and WEP):

1. ***On the [PC Card] tab, select [Profiles] and then select [Profile 1] or [Profile 2].***
2. ***On the [PC Card] tab, select [Advanced] and press the ENTER button. The [Advanced] menu will be displayed.***
 (→ page 92, 93)

To select a wireless LAN access point:

1. ***On the [PC Card] tab, select [Profiles] and then select [Profile 1] or [Profile 2].***
2. ***On the [PC Card] tab, select [Advanced] and press the ENTER button.***
3. ***On the Advanced menu, select [Network Type] → [Site Survey] and press the ENTER button.***
4. ***Select [Mode] and then select [Infrastructure].***
 (→ page 92)

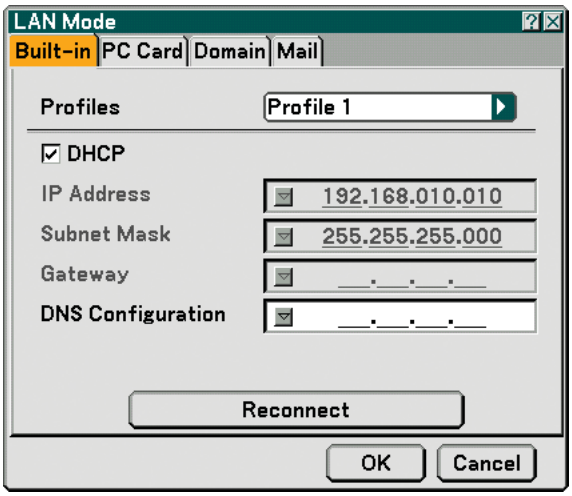
To receive error messages or information on the remaining lamp life via e-mail:

1. ***On the [Mail] tab, select [Alert Mail] and press the ENTER button. A check mark will be placed.***
2. ***Set [Sender's Address], [SMTP Server Name] and [Recipient's Address]. Select [OK] and press the ENTER button.***

 (→ page 95)

To execute [Easy Connection] using Image Express Utility 2.0:
The [Easy Connection] is a mode that can abbreviate the troublesome LAN settings when using the Image Express Utility 2.0 and connecting the PC and projector via a wireless LAN.
The Image Express Utility 2.0 is contained on the supplied User Supportware 3 CD-ROM. To use [Easy Connection], select [PC Card] → [Profiles] → [Easy Connection]. (→ page 91)

[Built-in]



Profiles (for LAN port [RJ-45]):
Up to two settings for the LAN port (RJ-45) can be stored in memory of the projector.
Select [Profile 1] or [Profile 2] and then do settings for [DHCP] and the other options.
After doing this, select [OK] and press the ENTER button. This will store your settings in memory.

DHCP:
Enabling this option automatically assigns an IP address to the projector from your DHCP server.
Disabling this option allows you to register the IP address or subnet mask number obtained from your network administrator.

IP Address Set your IP address. Press ▼ to display the software keyboard and type in 12 numeric characters.

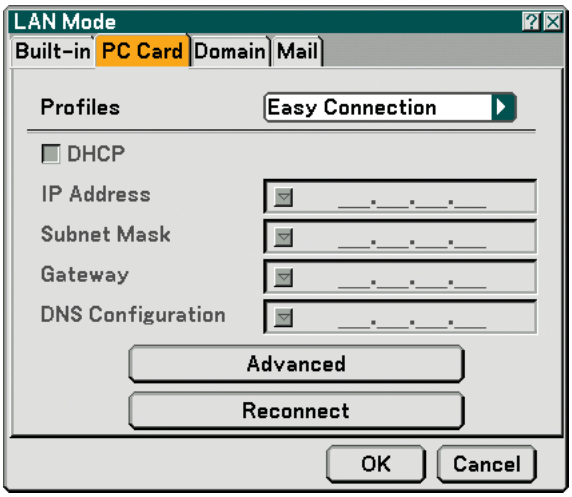
Subnet Mask Set your subnet mask number. Press ▼ to display the software keyboard and type in 12 numeric characters.

Gateway Set the default gateway of the network connected to the projector. Press ▼ to display the software keyboard and type in 12 numeric characters.

DNS Configuration Type in the IP address of DNS server on the network connected to the projector. 12 numeric characters are used.

Reconnect Use this button to connect the projector to a network.

[PC Card]



Profiles (for PC Card):
To execute a wireless LAN easily using Image Express Utility 2.0, select [Easy Connection].

Up to two settings for the optional wireless LAN card can be stored in memory of the projector.
Select [Profile 1] or [Profile 2] and then do settings for [DHCP] and the other options.
After doing this, select [OK] and press the ENTER button. This will store your settings in memory.

DHCP:
Place a check mark to automatically assign an IP address to the projector from your DHCP server.
Clear this check box to register the IP address or subnet mask number obtained from your network administrator.

IP Address Set your IP address. Press ▼ to display the software keyboard and type in 12 numeric characters.

Subnet Mask Set your subnet mask number. Press ▼ to display the software keyboard and type in 12 numeric characters.

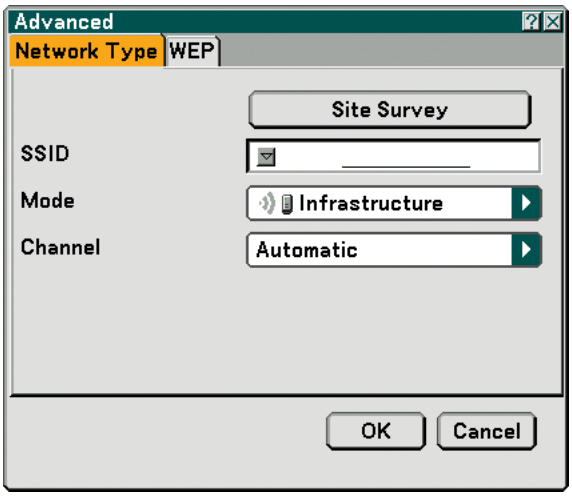
Gateway Set the default gateway of the network connected to the projector. Press ▼ to display the software keyboard and type in 12 numeric characters.

DNS Configuration Type in the IP address of DNS server on the network connected to the projector. Twelve numeric characters are used.

Advanced Displays the Advanced menu which includes various setting for wireless LAN connection (Network Type and WEP). See the Advanced menu later on.

Reconnect Use this button to connect the projector to a network.

[Advanced] menu
[Network Type] (required for wireless only)



Site Survey:
Displays a list of available SSIDs for wireless LAN on site. Select an SSID which you can access.
To select an SSID, highlight [SSID] and use the SELECT ► to select [OK] and press the ENTER button.

: access point
: Ad Hoc PC
: WEP enabled

NOTE: You cannot connect to a device with the SSID for Channel 14 because it is not displayed in the list.

SSID (Network name):
Enter an identifier (SSID) for wireless LAN when selecting [Infrastructure] or [802.11 Ad Hoc] in [Mode]. Communication can be done only with equipment whose SSID matches SSID for your wireless LAN. Up to 32 alphanumeric characters can be used (case sensitive).

Mode:
Select communication method when using wireless LAN.

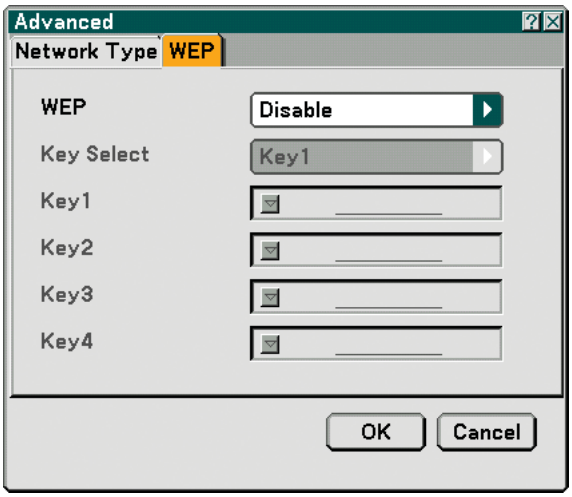
Infrastructure Select this option when communicating with one or more equipment connected to the wireless or wired LAN network via an access point.

802.11 Ad Hoc Select this option when using the wireless LAN to directly communicate with a computer in peer-to-peer mode. This is a method that meets the IEEE802.11 wireless standard.

NOTE: When in Ad Hoc mode, only 802.11b is available for communication method.
Data transmission speed in Ad Hoc mode is limited up to 11Mbps.

Channel:
Select a channel. There are 14 options available.

[WEP] (required for wireless only)



Select this option whether using the WEP (Wired Equivalent Privacy) key for encryption or not. To use encryption, specify WEP key.

Disable Will not turn on the encryption feature. Your communications may be monitored by someone.

64bit Uses 64-bit datalength for secure transmission.

128bit Uses 128-bit datalength for secure transmission. This option will increase privacy and security when compared to use of 64-bit datalength encryption.

152bit Uses 152-bit datalength for secure transmission. This option will increase privacy and security when compared to use of 128-bit datalength encryption.

NOTE:

- *The WEP settings must be the same as communication devices such as PC or access point in your wireless network.*
- *When you use WEP, your image transmission speed will slow down.*

Key Select:
Selects one key from the four keys below when selecting [64bit], [128bit] or [152bit] in [WEP].

Key1-4:
Enter encryption key when selecting [64bit], [128bit] or [152bit] in [WEP].
Up to 5 characters can be set in 64 bit, up to 13 characters in 128 bit and up to 16 characters in 152 bit. Press the [HEX] button to change to [ASCII] to set the key in ASCII digit. You can toggle this button between [ASCII] and [HEX].
The key can also be set in hexadecimal digit.

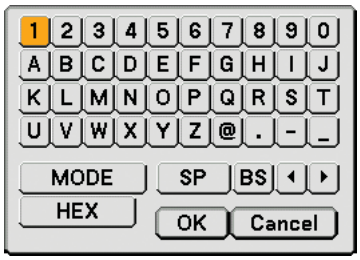
* Enter 0x(numeral and alphabet respectively) right in front of your key code.

* Hexadecimal uses 0 to 9 and A to F.

* When setting in a hexadecimal digit, up to 10 characters can be set in 64 bit, up to 26 characters in 128 bit and up to 32 characters in 152 bit.

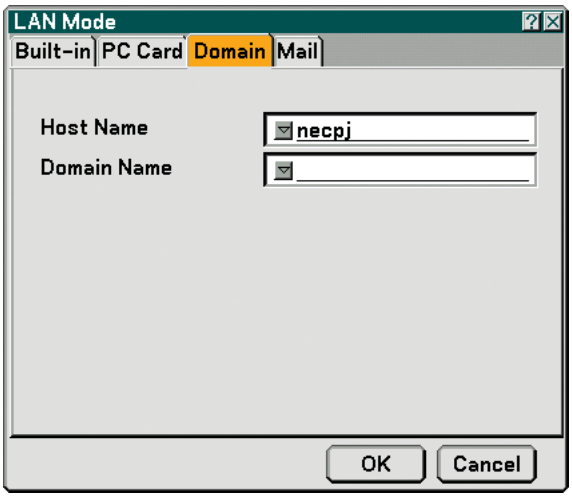
Using Software Keyboard to enter an encryption key

1. *Select one of [Key 1], [Key 2], [Key 3] and [Key 4] and press the ENTER button.*
 The software keyboard will be displayed.



2. *Use the SELECT ▲▼◀▶ button to select one key and press the ENTER button.*
3. *After finishing entering the WEP key, use the SELECT ▲▼◀▶ button to select [OK] and press the ENTER button.*
 The software keyboard will disappear.

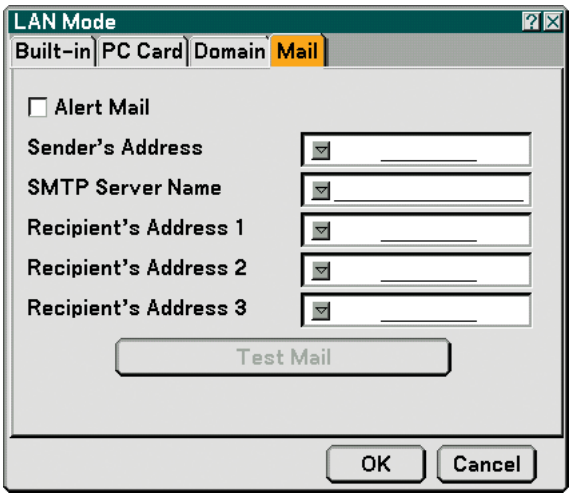
[Domain]



Host Name Type in a hostname. Up to 60 alphanumeric characters can be used.

Domain Name Type in domain name of the network connected to the projector. Up to 60 alphanumeric characters can be used.

[Mail]



Alert Mail:
Checking this box enables Alert Mail feature.
This option notifies your computer of an error message via e-mail when using wireless or wired LAN. The error message will be notified when the projector lamp has reached the end of its usable life or an error occurs in the projector.

Sample of a message sent from the projector:

The lamp is at the end of its usable life. Please replace the lamp.

Projector Name: X X X X

Lamp Hours Used: xxxx [H]

Projector Hours Used: xxxxxx [H]

Sender's Address:
Specify the senders address. Use the Software keyboard. Up to 60 alphanumeric and symbols characters can be used. See "Using Software Keyboard" in Appendix for more details.

SMTP Server Name:
Type in the SMTP server name to be connected to the projector. Up to 60 alphanumeric characters can be used.

Recipient's Address 1 to 3:
Type in your recipient's address. Up to 60 alphanumeric and symbols characters can be used.

Test Mail:
Send a test mail to check if your settings are correct.

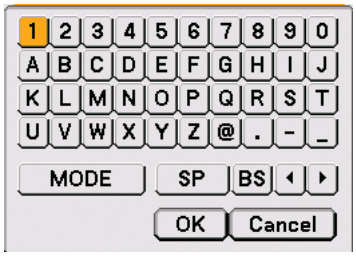
NOTE:
- *If you entered an incorrect address in a test, you may not receive an Alert mail. Should this happen, check if the Recipient's Address is correctly set.*
- *Unless any one of the [Sender's Address], [SMTP Server's Name] or [Recipient's Address 1-3] is selected, [Test Mail] is not available.*
- *Be sure to highlight [OK] and press the ENTER button before executing [Test Mail].*

NOTE: To use the Mail Alert feature on wireless LAN connection, select [Infrastructure] for [Mode] in [Network Type].

[Projector Name]

Specify a unique projector name. Press ▼ to display the software keyboard and type in. Up to 16 alphanumeric characters can be used. After entering a name, select [OK] and press the ENTER button.

Using Software Keyboard



1 to 0 and Characters Use to type in password or keyword.
MODE Selects one of three modes for alphabet and special characters.
SP Inserts a space
BS Deletes one character backward
◀ Returns to the previous
▶ Advances to the next
OK Executes the selection
Cancel Cancels the selection

Selecting Communication Speed [Communication Speed]

This feature sets the baud rate of the PC Control port (D-Sub 9 Pin). It supports data rates from 4800 to 38400 bps. The default is 38400 bps. Select the appropriate baud rate for your equipment to be connected (depending on the equipment, a lower baud rate may be recommended for long cable runs).
Your selected communication speed will not be affected even when [Reset] is done from the menu.

Setting the Current Date and Time [Date, Time Preset]

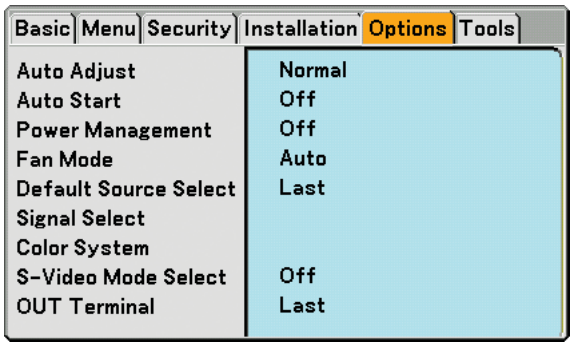
You can set the current time, month, date, and year.

NOTE: The projector has a built-in clock. The clock will keep working for about 2 weeks after the main power is turned off. If the main power is off for 2 weeks or more, the built-in clock will cease. If the built-in clock ceases, set the date and time again. The built-in clock will not cease while in the standby mode.

Turning On or Off Remote Sensor [Remote Sensor]

This option determines which remote sensor on the projector is enabled in wireless mode.
The options are: front, rear or both.

[Options]



Setting Auto Adjust [Auto Adjust]

This feature sets the Auto Adjust mode so that the RGB image can be automatically or manually adjusted for noise and stability. You can automatically make adjustment in two ways: [Normal] and [Fine].

Off The RGB image will not be automatically adjusted.
You can manually optimize the RGB image.

Normal Default setting. The RGB image will be automatically adjusted. Normally select this option.

Fine Select this option if fine adjustment is needed. It takes more time to switch to the source than when [Normal] is selected.

Enabling Auto Start [Auto Start]

Turns the projector on automatically when the power cable is inserted into an active power outlet and the main power switch is turned on. This eliminates the need to always use the POWER (ON/STANDBY) button on the remote control or projector cabinet.
To use the Auto Start function, you must first press the main power switch to the position "On" before plugging the power cable.

Enabling Power Management [Power Management]

When this option is selected you can enable the projector to automatically turn off (at the selected time: 5min., 10min., 20min., 30min.) if there is no signal received by any input.

Enabling High Speed Fan Mode [Fan Mode]

This option allows you to select two modes for fan speed: Auto mode and High speed mode.

Auto The built-in fans automatically run at a variable speed according to the internal temperature.

High The built-in fans run at high speed.

When you wish to cool down the temperature inside the projector quickly, select [High].

NOTE: Select High mode if you continue to use the projector for consecutive days.

Selecting Default Source [Default Source Select]

You can set the projector to default to any one of its inputs each time the projector is turned on.

Last Sets the projector to default to the previous or last active input each time the projector is turned on.

Auto Searches for an active source in order of Computer1 → Computer2 → Computer3 → Component → Video → S-Video → Viewer → Computer1 and displays the first found source.

Select Displays the selected source input every time the projector is started up. Select an input from the pull-down menu.

Selecting Signal Format [Signal Select]

Computer 1/2

Allows you to set [Computer 1] and [Computer 2] to automatically detect an incoming RGB or component source such as a computer or DVD player. However there may be some RGB and component signals that the projector is unable to detect. In this case, select [RGB] or [Component].
Select [Scart] in COMPUTER 1 for the European Scart signal.

Component

Select a signal type from the COMPONENT (Y, Cb/Pb, Cr/Pr) connectors.

Component..... Selects a component signal.

Video Selects a component signal such as Y/Cb/Cr or Y/Pb/Pr.

NOTE: When using the "Y" connector of the COMPONENT connectors to display a Video signal, select "Video".

Selecting [Color System]

This feature enables you to select video standards manually.
Normally select [Auto]. Select the video standard from the pulldown menu. This must be done for Component (Video), Video and S-Video Connector separately.

Selecting S-Video Mode [S-Video Mode Select]

This feature is used to select the S-Video signal detection mode.
This allows identifying of the S-Video signals with different aspect ratio (16:9 and 4:3).

Off Does not identify any S-Video signal.

S2..... Identifies the 16:9 or 4:3 signal.

NOTE: The Aspect Ratio is not available when S2 signal is detected.

Setting MONITOR OUT Connector [OUT Terminal]

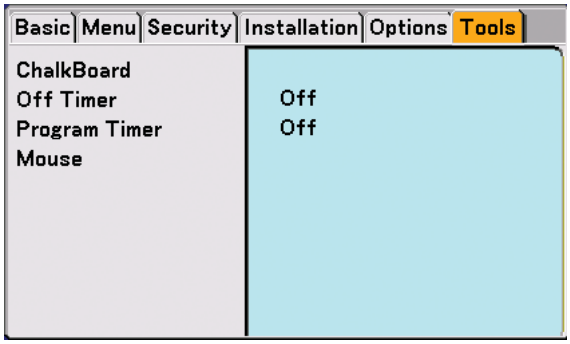
This option allows you to determine which RGB or component source is output from the MONITOR OUT connector during Standby mode.

Last The signal from the last COMPUTER 1, COMPUTER 2 or COMPONENT input will be output to the MONITOR OUT connector.

Computer 1, 2 The signal from the COMPUTER1 or COMPUTER2 input will be output to the MONITOR OUT connector.

Component..... The signal from the COMPONENT input will be output to the MONITOR OUT connectors.

[Tools]



Selecting the ChalkBoard [ChalkBoard]

This option displays the ChalkBoard tool bar.

The ChalkBoard feature allows you to write and draw messages on a projected image. (→ page 44)

NOTE: The ChalkBoard feature is available only when a USB mouse is used.

Using Off Timer [Off Timer]

1. Select your desired time between 30 minutes and 16 hours: Off, 0:30, 1:00, 2:00, 4:00, 8:00, 12:00, 16:00.

2. Select [OK] and press the ENTER button on the remote control.

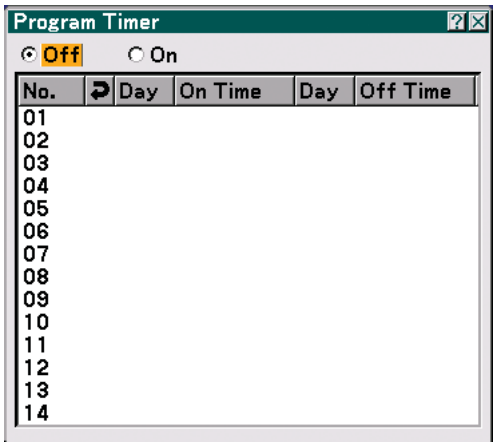
3. The remaining time starts counting down.

4. The projector will turn off after the countdown is complete.

NOTE:

- *To cancel the preset time, set [Off] for the preset time or turn off the power.*
- *When the remaining time reaches 3 minutes before the projector is turned off, the [The projector will turn off within 3 minutes] message will be displayed on the bottom of the screen.*

Using Program Timer [Program Timer]



This option turns on or off the projector automatically at a specified time.
Up to 14 different timer settings can be programmed.

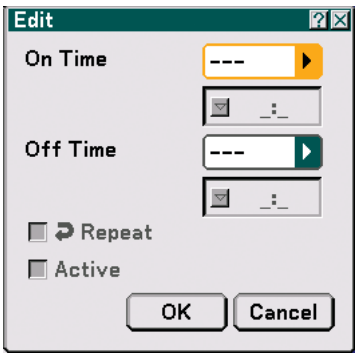
NOTE:

- *Before setting the Program Timer, make sure that the [Date, Time Preset] feature is set. (→ page 96)*
- *Make sure that the projector is in the stand by condition with the Main Power Switch on.*
- *The projector has a built-in clock. The clock will keep working for about two weeks after the main power is turned off. If the main power is not supplied to the projector for two weeks or more, the built-in clock stops working.*

Setting the Program Timer

1. ***On the Program Timer screen, use the SELECT▲ or▼ button to select a program number (No. 1 to 14) and press the ENTER button.***

 The [Edit] screen will be displayed.



2. ***Set the turn-on time.***

 2-1. *Use the SELECT▲ or▼ button to select --- (the day of week) for [On Time] and press the SELECT► button or OK button.*

 The day of week pull-down list will be displayed.

 2-2. *Select a day of the week and press the ENTER button.*

 2-3. *Use the SELECT▲ or▼ button to select --- (the time) for [On Time] and enter time.*

 - *Enter time in 24-hour format*

 Example: Enter "06" to set 6:00 A.M. and "18" to set 6:00 P.M.

3. ***Set the turn-off time.***

 3-1. *Use the SELECT▲ or▼ button to select --- (the day of week) for [Off Time] and press the SELECT► button or OK button.*

 The day of week pull-down list will be displayed.

 3-2. *Select a day of the week and press the ENTER button.*

 3-3. *Use the SELECT▲ or▼ button to select --- (the time) for [Off Time] and enter time.*

 - *Enter time in 24-hour format*

 Example: Enter "06" to set 6:00 A.M. and "18" to set 6:00 P.M.

4. ***Set the Repeat option.***

 - *To repeat the setting in weekly basis, use the SELECT▲ or▼ button to select the [Repeat] check box and press the ENTER button.*

 A check mark will be placed in the [Repeat] check box.

NOTE: To use the setting this week only, do not place a check mark in the [Repeat] check box.

5. Set the Active option.

- *Use the SELECT ▲ or ▼ button to select [Active] and press the ENTER button.*
 A check mark will be placed in [Active].

6. Complete the settings.

- *Use the SELECT ▲ or ▼ button to select the [OK] button and press the ENTER button.*
 On- time or off-time will be set.
 You will be returned to the Program Timer screen.

Activating the Program Timer

On the Program Timer screen, select [On].
This will activate the time settings.
Selecting [Off] will disable the Program Timer even when a check mark is placed in the [Active] check box of the Edit screen.

NOTE:

- *The Program Timer is executed on a set time basis, not on a program basis.*
 When one or more active on- and off-time are set, the earlier time setting will take preference.
- *The off-timer programs not marked with a check in the [Repeat] check box will be disabled and the check mark in the [Active] check box will be cleared.*
 The on-timer programs not marked with a check in the [Repeat] check box will be disabled and the check mark in the [Active] check box will be cleared.
- *When on-time and off-time are set for the same time, the off-time setting will take preference.*
- *The on-time setting will not be executed while the cooling fans are running or an error is occurring.*
- *If the off-time setting is expired in condition in which the power off is not possible, the off-timer setting will be executed in condition in which the power off is possible.*
- *Programs with [On] selected on the [Edit] screen will not be executed even if the Program Timer is enabled.*

Changing the programmed settings

1. On the Program Timer screen, use the SELECT ▲ or ▼ button to select a program you want to edit and press the ENTER button.

- *The [Command] screen will be displayed.*

2. Select the [Edit] button and press the ENTER button.

The [Edit] screen will be displayed.

3. Change the settings.

4. Use the SELECT ▲ or ▼ button to select the [OK] button and press the ENTER button.

The programmed settings will be changed.
You will be returned to the Program Timer screen.

Delete the programmed settings

1. ***On the Program Timer screen, use the SELECT ▲ or ▼ button to select a program you want to delete and press the ENTER button.***
 - *The [Command] screen will be displayed.*

2. ***Use the SELECT ▲ or ▼ button to select the [Delete] button and press the ENTER button.***
 - *The programmed setting will be deleted.*
 You will be returned to the Program Timer screen.

Setting Mouse Pointer, Button and Sensitivity [Mouse]

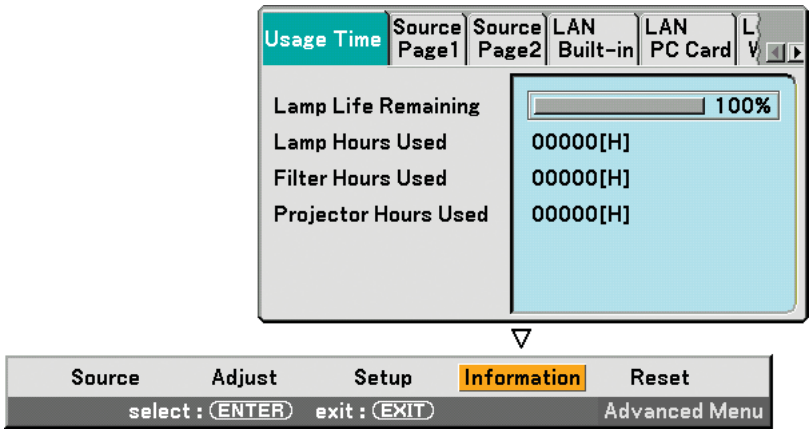
This option lets you to change your USB mouse settings. The mouse settings feature is available for USB mouse only. Choose the settings you want:

Mouse Pointer Pointer 1 - 9

Mouse Button [Right Hand] or [Left Hand]

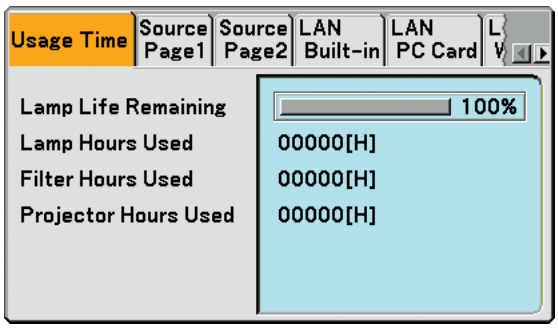
Mouse Sensitivity .. [Fast], [Medium] or [Slow]

❼ Menu Descriptions & Functions [Information]



Displays the lamp and the projector usage hours, the status of the current signal and settings and LAN settings. This dialog box has seven pages.
The information included are as follows:

[Usage Time]

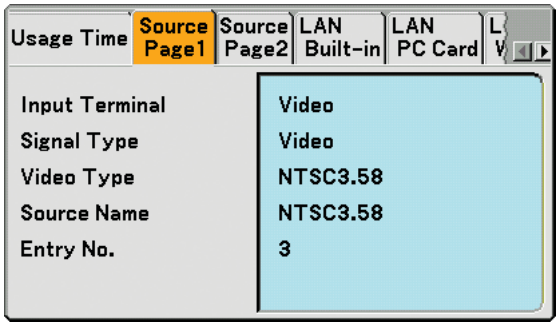


Lamp Life Remaining (%)
Lamp Hours Used (H)
Filter Hours Used (H)
Projector Hours Used (H)

NOTE: The progress indicator shows the percentage of remaining lamp life. The value informs you of the amount of lamp, filter and projector usage respectively.

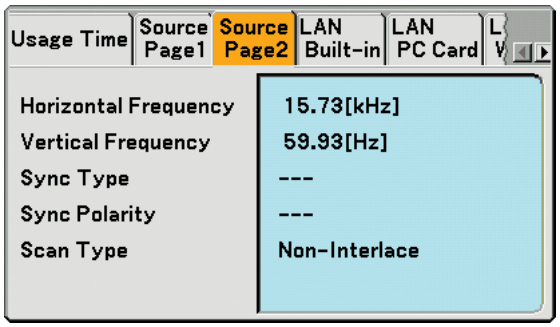
- *When the remaining lamp time reaches 0, the Lamp Life Remaining bar indicator changes from 0% to 100 Hours and the count-down starts.*
 If lamp life remaining time reaches 0 hours, the projector will not turn on regardless of whether the lamp mode is set to Normal or Eco.
- *The message to the effect that the lamp should be replaced will be displayed for one minute when the projector is turned on or off. To dismiss this message, press any button on the projector or the remote control.*

[Source Page1]



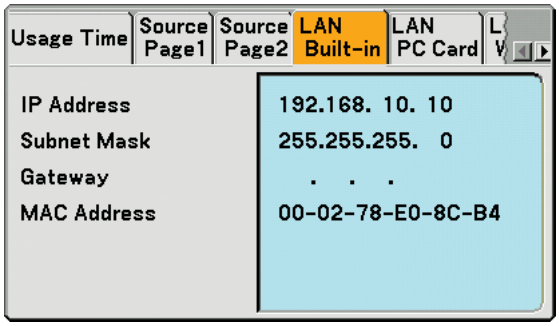
Input Terminal
Signal Type
Video Type
Source Name
Entry No.

[Source Page2]



Horizontal Frequency
Vertical Frequency
Sync Type
Sync Polarity
Scan Type

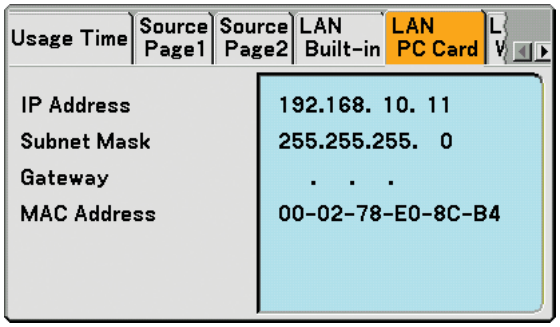
[LAN Built-in]



This page shows information on settings for the LAN port (RJ-45)

IP Address Indicates the IP address of the projector when the LAN port (RJ-45) is used.
Subnet Mask Indicates the subnet mask of the projector when the LAN port (RJ-45) is used
Gateway Indicates the gateway of the network connected to the projector when the LAN port (RJ-45) is used.
MAC Address Indicates the MAC address of the LAN port (RJ-45).

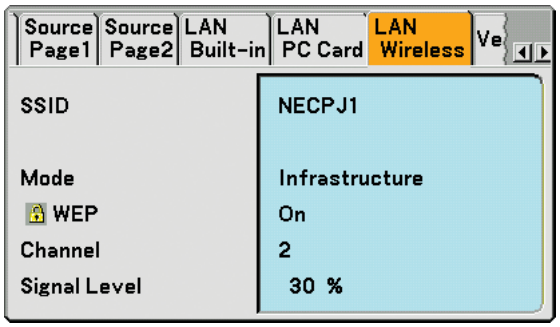
[LAN PC Card]



This page shows information on settings for the optional wireless LAN card

IP Address Indicates the IP address of the projector when the optional wireless LAN card is used.
Subnet Mask Indicates the subnet mask of the projector when the optional wireless LAN card is used.
Gateway Indicates the gateway of the network connected to the projector when the optional wireless LAN card is used.
MAC Address Indicates the MAC address of the optional wireless LAN card.

[LAN Wireless]



This page shows information on settings for WEP key for encryption.

SSID Indicates the identifier (SSID) for your wireless LAN.

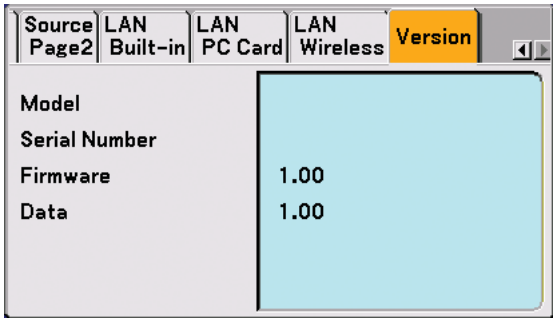
Mode Indicates that [Easy Connection], [Infrastructure] or [802.11 Ad Hoc] is selected for your communication method

WEP Indicates your selected datalength encryption: On or Off

Channel Indicates the channel you selected in the [Site Survey]. The channel must match for all wireless devices communicating on your wireless LAN.

Signal Level Indicates receiving condition of radio signal level while you are using a wireless LAN connection (Only when PC Card is used)

[Version]

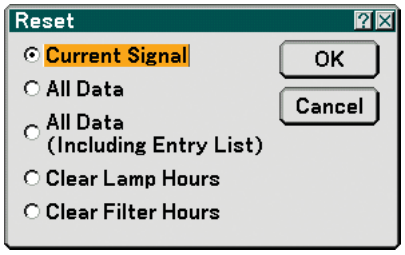


Model
Serial Number
Firmware
Data

❽ Menu Descriptions & Functions [Reset]



Returning to Factory Default



The Reset feature allows you to change adjustments and settings to the factory preset for sources by the following methods:

[Current Signal]

Resets the adjustments for the current signal to the factory preset levels.
All the items in [Adjust] can be reset.

[All Data]

Reset all the adjustments and settings for all the signals to the factory preset except [Entry List], [Language], [Background], [Control Panel Lock], [Menu Lock], [Logo Lock], [Security], [PJLink], [LAN Mode], [Projector Name], [Communication Speed], [Date, Time Preset], [Lamp Life Remaining], [Lamp Hours Used], [Filter Hours Used] and [Projector Hours Used].

[All Data (Including Entry List)]

Reset all the adjustments and settings for all the signals to the factory preset except [Language], [Background], [Control Panel Lock], [Menu Lock], [Logo Lock], [Security], [PJLink], [LAN Mode], [Projector Name], [Communication Speed], [Date, Time Preset], [Lamp Life Remaining], [Lamp Hours Used], [Filter Hours Used] and [Projector Hours Used].
Also deletes all the signals in the [Entry List] and returns to the factory preset.

NOTE: Locked signals in Entry List cannot be reset.

Clearing Lamp Hour Meter [Clear Lamp Hours]

Resets the lamp clock back to zero.

NOTE: Elapsed time of the lamp use will not be affected even when [Reset] is done from the menu.

NOTE: The projector will turn off and go into standby mode after 2100 hours (up to 3100 hours in Eco mode) of service. In this condition you cannot clear the lamp hour meter on the menu. If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero. Do this only after replacing the lamp.

Resetting the Filter Usage Hours [Clear Filter Hours]

Resets the filter usage back to zero.

NOTE: Elapsed time of the filter use will not be affected even when [Reset] is done from the menu.

7. Maintenance

This section describes the simple maintenance procedures you should follow to clean the filters and replace the lamp.

❶ Cleaning or Replacing the Filter

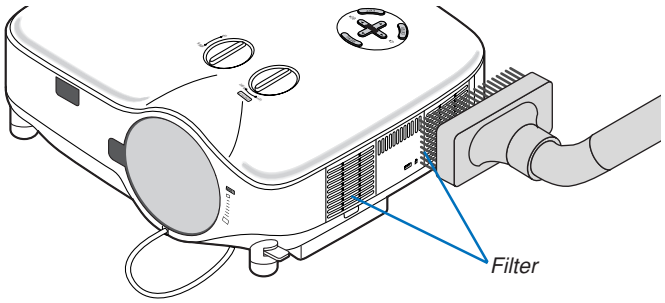
The air-filter sponge keeps dust and dirt from getting inside the projector and should be cleaned after every 100 hours of operation (more often in dusty conditions). If the filter is dirty or clogged, your projector may overheat.

CAUTION

- Turn off the projector, turn off the main power switch and unplug the projector before replacing the filter.
- Only clean the outside of the filter cover with a vacuum cleaner.
- Do not attempt to operate the projector without the filter cover.

To clean the air-filter:

Vacuum the filter-through the filter cover.



To reset the filter usage time, from the menu, select [Reset] → [Clear Filter Hours].
(→ page 107 for resetting the filter usage time)

To replace the filter (sponge):

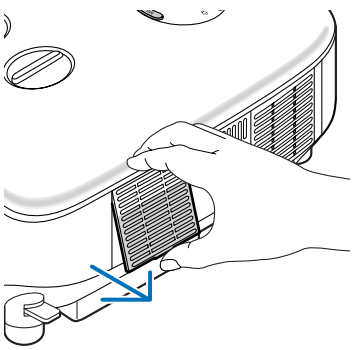
CAUTION

- Replace both filters at the same time.
- Before replacing the filters, remove dust and dirt from the projector cabinet.
- The projector contains high-precision parts. Keep out dust and dirt during filter replacement.
- Do not wash the filter with water. Water will damage the filter membrane.
- Reattach the filter cover correctly. Failure to do so may cause projector malfunction.

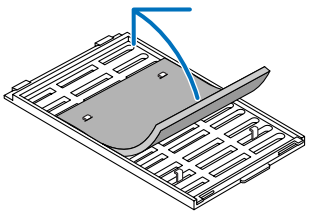
Preparation: Replace the lamp before replacing the filters.

NOTE: When you replace the lamp, it is also wise to replace the filter. The filter comes in the same package with your replacement lamp.

1. Pull to remove the filter cover.



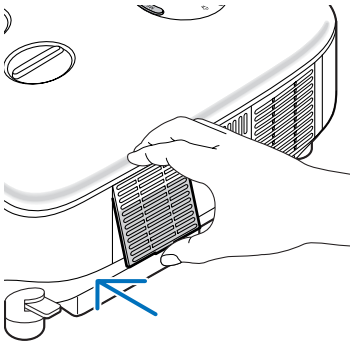
2. Gently peel off the filter (sponge) and replace it with the new one.



The filter is attached self-adhesive tape. Peel off a release paper before use.

3. Reinstall the new filter cover.

- Slip the filter cover back until it snaps into place.



4. Connect the supplied power cable, turn on the Main Power switch and turn on the projector.

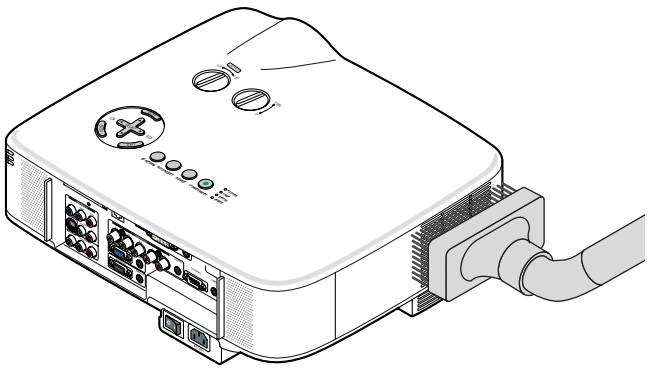
5. Finally, select the menu → [Reset] → [Clear Filter Hours] to reset the filter usage hours.
(→ page 107 for resetting the filter usage time)

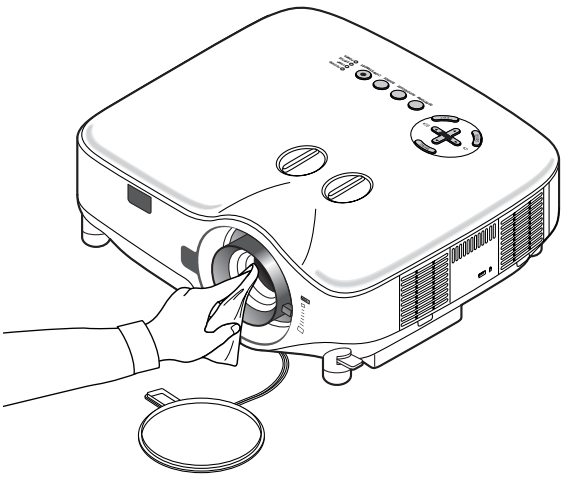
❷ Cleaning the Cabinet and the Lens

1. Turn off the projector before cleaning.

2. Clean the cabinet periodically with a damp cloth. If heavily soiled, use a mild detergent. Never use strong detergents or solvents such as alcohol or thinner.

3. Use a blower or lens paper to clean the lens, and be careful not to scratch or mar the lens.





❸ Replacing the Lamp

After your lamp has been operating for 2000 hours (up to 3000 hours in Eco mode) or longer, the LAMP indicator in the cabinet will blink red. Even though the lamp may still be working, replace it at 2000 (up to 3000 hours in Eco mode) hours to maintain optimal projector performance. After replacing the lamp, be sure to clear the lamp hour meter. (→ page 107)

CAUTION

- DO NOT TOUCH THE LAMP immediately after it has been used. It will be extremely hot. Turn the projector off, wait 30 seconds, turn off the main power switch and then disconnect the power cable. Allow at least one hour for the lamp to cool before handling.
- DO NOT REMOVE ANY SCREWS except two lamp housing screws. You could receive an electric shock.
- Do not break the glass on the lamp housing.

 Keep finger prints off the glass surface on the lamp housing. Leaving finger prints on the glass surface might cause an unwanted shadow and poor picture quality.
- The projector will turn off and go into standby mode after 2100 (up to 3100 hours in Eco mode) hours of service. If this happens, be sure to replace the lamp. If you continue to use the lamp after 2000 hours (up to 3000 hours in Eco mode) of use, the lamp bulb may shatter, and pieces of glass may be scattered in the lamp case. Do not touch them as the pieces of glass may cause injury. If this happens, contact your dealer for lamp replacement.

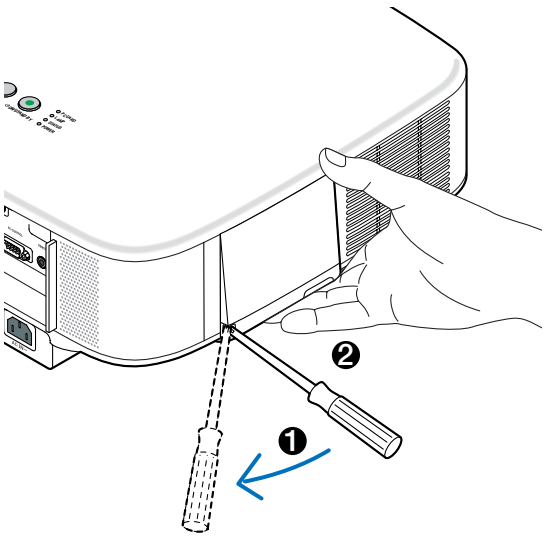
To replace the lamp:

Optional lamp and tools needed for replacement:

- Replacement lamp 456-8806
- Phillips screwdriver or equivalent

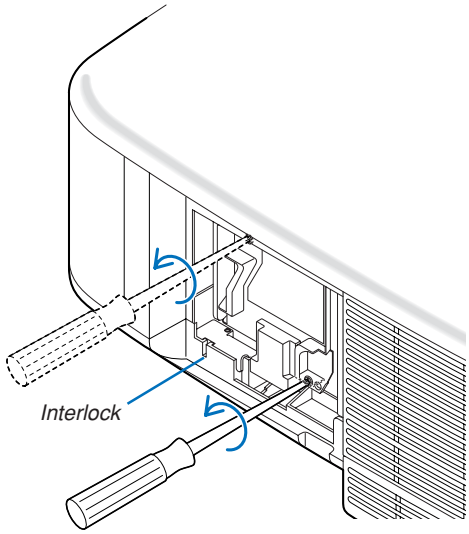
1. Use a Philips screwdriver to push and release the tab.

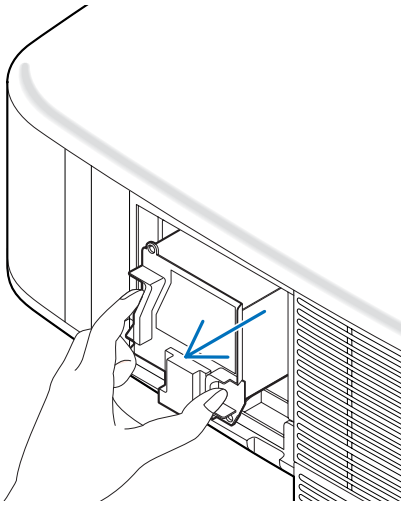
Push and pull to remove the lamp cover.



2. Loosen the two screws securing the lamp housing until the phillips screwdriver goes into a freewheeling condition. The two screws are not removable.

Remove the lamp housing by holding it.





NOTE: There is an interlock on this case to prevent the risk of electrical shock. Do not attempt to circumvent this interlock.

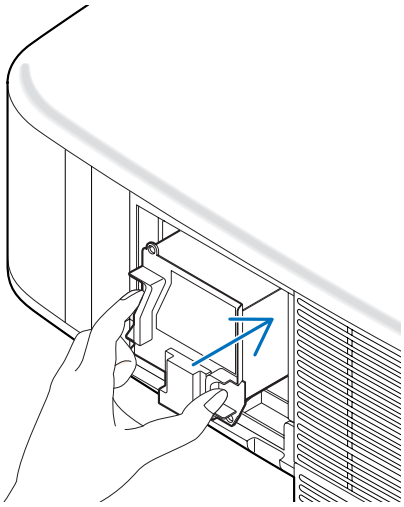
3. Insert a new lamp housing until the lamp housing is plugged into the socket.

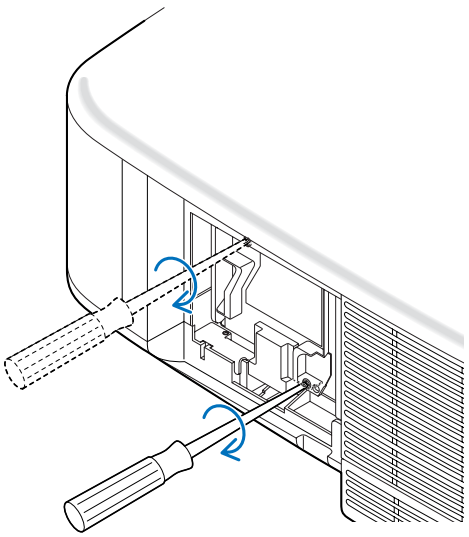
CAUTION

Do not use a lamp other than the replacement lamp 456-8806.
Order this from your dealer.

Secure it in place with the two screws.

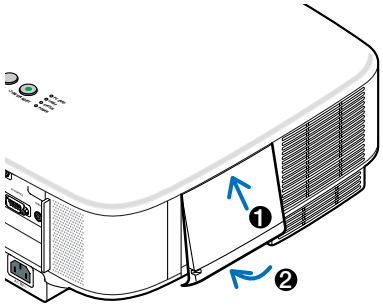
Be sure to tighten the screws.

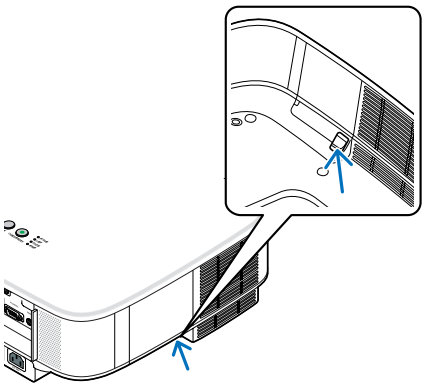




4. Reattach the lamp cover.

Slip the lamp cover back until it snaps into place.





5. Connect the supplied power cable, turn on the Main Power switch and turn on the projector.

6. Finally, select the menu → [Reset] → [Clear Lamp Hours] to reset the lamp life remaining and lamp usage hours.

NOTE: When the lamp exceeds 2100 hours (up to 3100 hours in Eco mode) of service, the projector cannot turn on and the menu is not displayed.
If this happens, press the HELP button on the remote control for 10 seconds to reset the lamp clock back to zero.
When the lamp time clock is reset to zero, the LAMP indicator goes out.

8. Using Optional Lenses

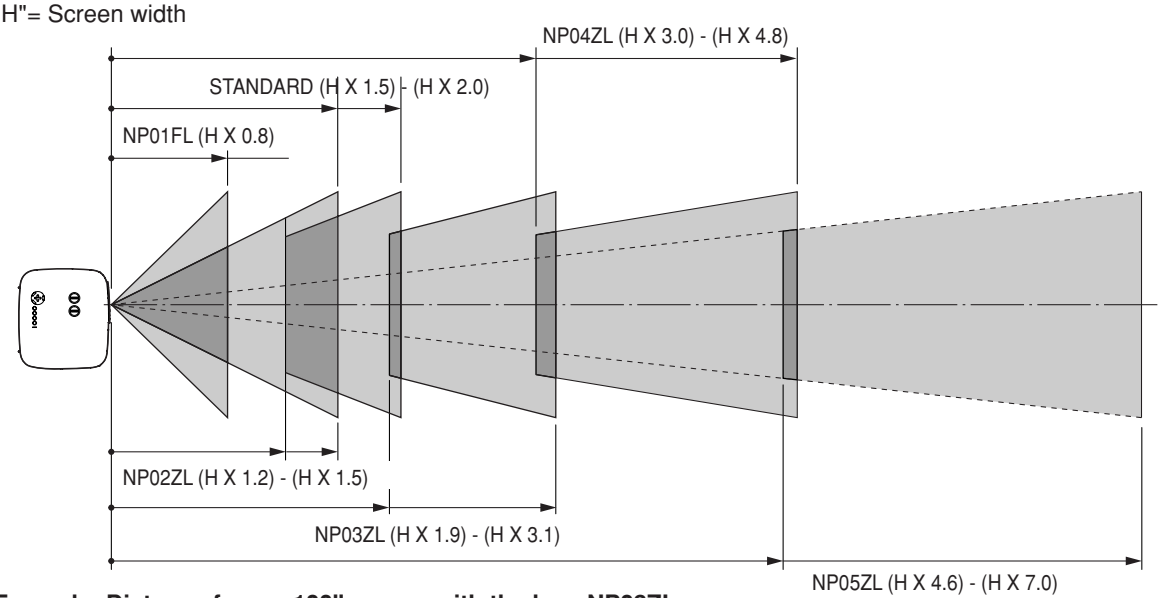
Five optional lenses are available for the 8806/8808. See the information described on this page to buy the appropriate lens for your screen size and throw distance. See page 115 for installing the lens.

❶ Table of Throw Distances and Screen Sizes for Optional Lenses

Screen Size	STANDARD 1.5 – 2.0		NP01FL 0.8		NP02ZL 1.2 – 1.5		NP03ZL 1.9 – 3.1		NP04ZL 3.0 – 4.8		NP05ZL 4.6 – 7.0	
	(m)	(inches)	(m)	(inches)	(m)	(inches)	(m)	(inches)	(m)	(inches)	(m)	(inches)
30"	0.89 – 1.20	35.1 – 47.3			0.70 – 0.92	27.5 – 36.4						
40"	1.20 – 1.62	47.4 – 63.8	0.64	25.3	0.95 – 1.25	37.3 – 49.1	1.56 – 2.51	61.4 – 98.6				
60"	1.83 – 2.45	72.2 – 96.6	0.98	38.6	1.44 – 1.89	56.9 – 74.5	2.37 – 3.79	93.5 – 149.4	3.60 – 5.83	141.7 – 229.7		
67"	2.05 – 2.75	80.8 – 108.2	1.10	43.3	1.62 – 2.12	63.7 – 83.4	2.66 – 4.25	104.7 – 167.1	4.03 – 6.53	158.8 – 257.0		
72"	2.21 – 2.96	87.0 – 116.4	1.18	46.6	1.74 – 2.28	68.6 – 89.8	2.86 – 4.57	112.8 – 179.8	4.34 – 7.03	171.1 – 276.6		
80"	2.46 – 3.29	96.9 – 129.5	1.32	51.9	1.94 – 2.54	76.4 – 99.9	3.19 – 5.08	125.6 – 200.1	4.84 – 7.82	190.6 – 307.9	7.65 – 11.73	301.3 – 462.0
84"	2.59 – 3.46	101.8 – 136.1	1.39	54.6	2.04 – 2.67	80.3 – 105.0	3.35 – 5.34	132.0 – 210.3	5.09 – 8.22	200.4 – 323.5	8.05 – 12.33	316.8 – 485.5
90"	2.78 – 3.71	109.3 – 146.0	1.49	58.6	2.19 – 2.86	86.2 – 112.6	3.60 – 5.73	141.7 – 225.5	5.46 – 8.81	215.0 – 346.9	8.63 – 13.23	340.0 – 520.7
100"	3.09 – 4.13	121.6 – 162.4	1.66	65.3	2.44 – 3.18	96.0 – 125.4	4.01 – 6.37	157.7 – 250.8	6.08 – 9.81	239.5 – 386.0	9.62 – 14.72	378.6 – 579.4
120"	3.72 – 4.96	146.3 – 195.3	2.00	78.6	2.93 – 3.83	115.5 – 150.8	4.82 – 7.66	189.8 – 301.6	7.32 – 11.79	288.3 – 464.2	11.58 – 17.70	455.8 – 696.8
150"	4.66 – 6.21	183.4 – 244.6	2.50	98.6	3.68 – 4.80	144.9 – 188.9	6.05 – 9.59	238.0 – 377.7	9.18 – 14.77	361.6 – 581.5	14.52 – 22.17	571.7 – 872.9
180"	5.60 – 7.47	220.5 – 294.0			4.42 – 5.77	174.2 – 227.1	7.27 – 11.53	286.2 – 453.8	11.05 – 17.75	434.9 – 698.7	17.46 – 26.65	687.5 –1049.0
200"	6.23 – 8.30	245.3 – 326.9			4.92 – 6.41	193.8 – 252.5	8.08 – 12.81	318.3 – 504.5	12.29 – 19.73	483.8 – 776.9	19.43 – 29.63	764.8 –1166.4
210"	6.54 – 8.72	257.6 – 343.3			5.17 – 6.74	203.5 – 265.2	8.49 – 13.46	334.3 – 529.9	12.91 – 20.73	508.2 – 816.0	20.41 – 31.12	803.4 –1225.1
240"	7.49 – 9.97	294.7 – 392.6			5.91 – 7.71	232.9 – 303.4	9.72 – 15.39	382.5 – 606.0	14.77 – 23.70	581.5 – 933.3	23.35 – 35.59	919.3 –1401.2
250"	7.80 – 10.39	307.1 – 409.1			6.16 – 8.03	242.7 – 316.1	10.12 – 16.04	398.6 – 631.4	15.39 – 24.70	605.9 – 972.4	24.33 – 37.08	957.9 –1459.9
270"	8.43 – 11.23	331.8 – 442.0			6.66 – 8.67	262.2 – 341.5	10.94 – 17.33	430.7 – 682.1	16.63 – 26.68	654.8 –1050.5	26.29 – 40.06	1035.1–1577.3
300"	9.37 – 12.48	368.9 – 491.3			7.41 – 9.64	291.5 – 379.7	12.16 – 19.26	478.8 – 758.2	18.49 – 29.66	728.1 –1167.8	29.23 – 44.54	1151.0–1753.5
400"	12.51 – 16.66	492.5 – 655.8			9.89 – 12.87	389.3 – 506.8	16.24 – 25.70	639.4 –1011.9	24.70 – 39.59	972.4 –1558.7	39.04 – 59.45	1537.2–2340.5
500"	15.65 – 20.83	616.2 – 820.2			12.37 – 16.10	487.1 – 634.0	20.32 – 32.15	799.9 –1265.6	30.90 – 49.52	1216.7–1949.5	48.85 – 74.36	1923.4–2927.5

For screen sizes between 30" and 500" not indicated on the above table, use formulas below.

Throw distance for Standard lens (m/inch)=H × 1.5 through H × 2.0 Distance from 0.89m to 20.83m/35.1" to 820.2"
Throw distance for NP01FL(m/inch)=H × 0.8 Distance from 0.64m to 2.5m/25.3" to 98.6"
Throw distance for NP02ZL(m/inch)=H × 1.2 through H × 1.5 Distance from 0.7m to 16.1m/27.5" to 634"
Throw distance for NP03ZL(m/inch)=H × 1.9 through H × 3.1 Distance from 1.56m to 32.15m/61.4" to 1265.6"
Throw distance for NP04ZL(m/inch)=H × 3.0 through H × 4.8 Distance from 3.6m to 49.52m/141.7" to 1949.5"
Throw distance for NP05ZL(m/inch)=H × 4.6 through H × 7.0 Distance from 7.65m to 74.36m/301.3" to 2927.5"
"H"= Screen width

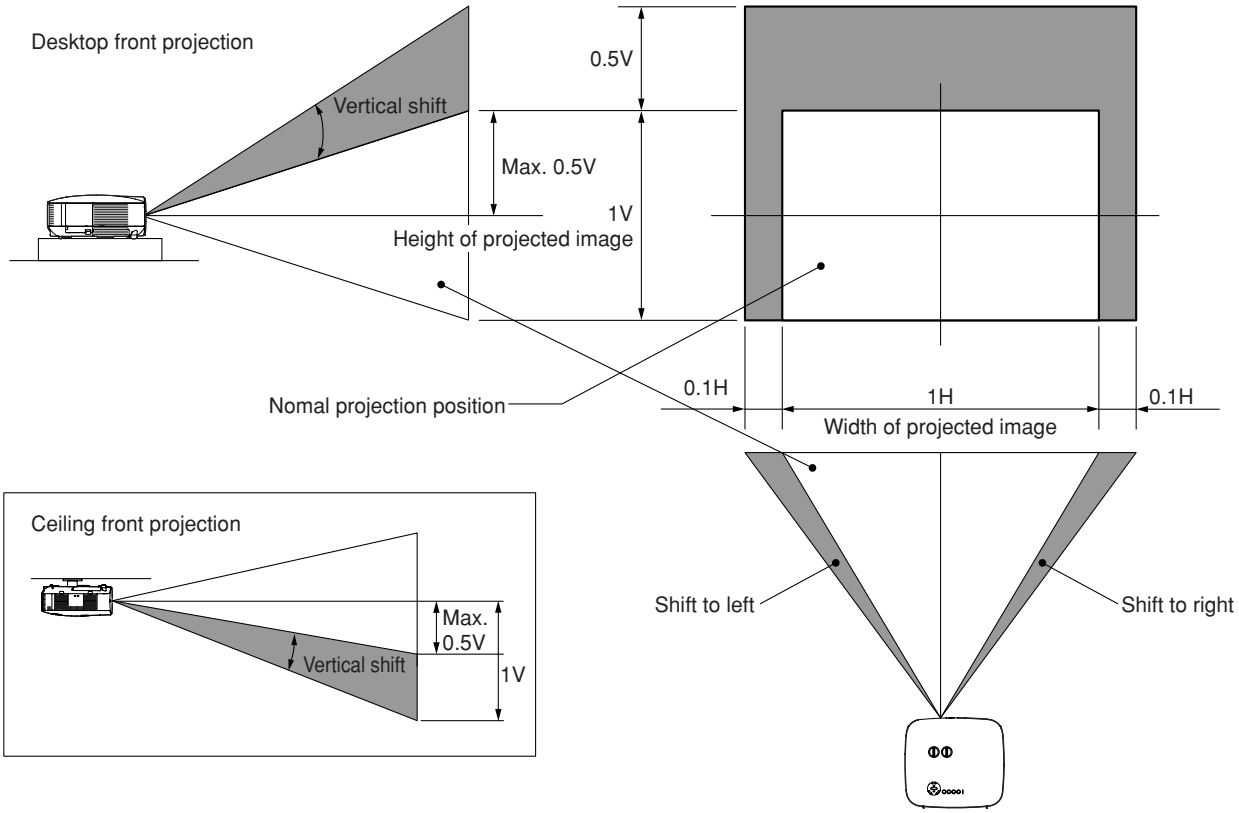


Example: Distance from a 100" screen with the lens NP03ZL
Referring to the diagram on page 124, "H" is 2.0 m/78.7". Therefore, the projection distances of 100 inches are from 2.0 m/78.7" × 1.9 to 2.0 m/78.7" × 3.1 = from 3.8 m/150" to 6.2 m/244".

NOTE: Distances may vary +/-5%

❷ Lens Shift Adjustable Range

The top right diagram shows the location of the image position in the lens. The lens can be shifted within the shaded area as shown using the normal projection position as a starting point.
The projector has a lens shift feature that allows you to move the image vertically or horizontally.

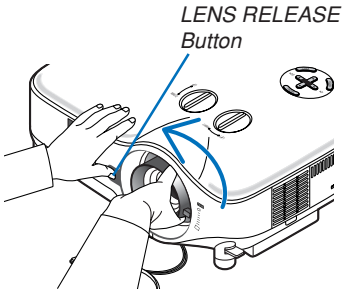


❸ Replacing with Optional Lens

CAUTION

- Do not give a shock or excessive load to the projector or the lens components as the projector and lens components contain precision parts.
- When shipping the projector with the optional lens, remove the optional lens before shipping the projector. The lens and the lens shift mechanism may encounter damage caused by improper handling during transportation.
- Before removing or installing the lens, be sure to turn off the projector, wait until the cooling fans stop, and turn off the main power switch.
- Do not touch the lens surface when removing or installing the lens.
- Keep fingerprints, dust or oil off the lens surface. Do not scratch the lens surface.
- Work on a level surface with a soft cloth under it to avoid scratching.
- If you remove and store the lens, attach the lens cap to the projector to keep off dust and dirt.

Remove the existing lens from the projector.

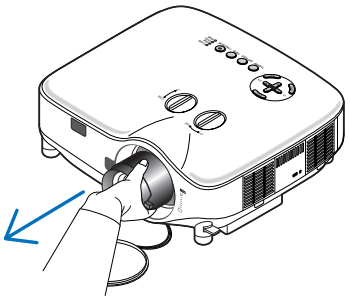


1. ***Rotate the lens counterclockwise while strongly pushing the LENS RELEASE button all the way in.***

 The existing lens will be disengaged.

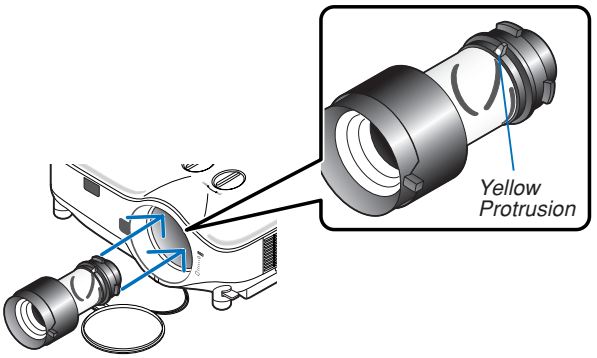
 NOTE: If the lens cannot be removed even by using the LENS RELEASE button, the anti-theft screw for lens may be used to secure the lens. If such is the case, remove the anti-theft screw first. (→ page 116)

2. ***Pull out the existing lens slowly.***



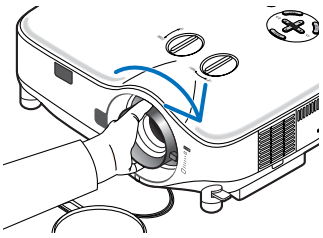
Install the new lens

1. ***Insert the lens with the yellow protrusion on top.***



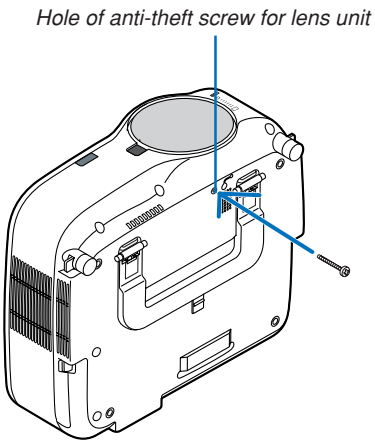
2. ***Rotate the lens clockwise.***

 Rotate the lens until you feel it click into place.



Using the anti-theft screw to prevent theft of the lens

Tighten the supplied anti-theft screw on the front bottom.



9. Appendix

❶ Troubleshooting

This section helps you resolve problems you may encounter while setting up or using the projector.

Indicator Messages

Power Indicator

Indicator Condition			Projector Condition	Note
Off			The main power is off	–
Blinking light	Green	0.5 sec On, 0.5 sec Off	The projector is getting ready to turn on.	Wait for a moment.
		2.5 sec On, 0.5 sec Off	Off Timer or Program Timer (Off Time) is activated.	–
	Orange	0.5 sec On, 0.5 sec Off	The projector is cooling down.	Wait for a moment.
		2.5 sec On, 0.5 sec Off	Program Timer (On Time) is activated.	–
Steady light	Green		The projector is turned on.	–
	Orange		The projector is in Standby.	–

Status Indicator

Indicator Condition			Projector Condition	Note
Off			Normal	–
Blinking light	Red	1 cycle (0.5 sec On, 2.5 sec Off)	Lamp cover error	Reattach the lamp cover correctly. (→ page 112)
		2 cycle (0.5 sec On, 0.5 sec Of)	Temperature error	The projector is overheated. Move the projector to a cooler location.
		3 cycle (0.5 sec On, 0.5 sec Off)	Power error	Power unit will not work correctly.
		4 cycle (0.5 sec On, 0.5 sec Off)	Fan error	Fans will not work correctly.
		6 cycle (0.5 sec On, 0.5 sec Off)	Lamp error	Lamp fails to light. Wait a full minute and then turn on again.
	Green		Re-firing the lamp	The projector is re-firing.
	Orange	1 cycle (0.5 sec On, 2.5 sec Off)	Network conflict	Both the built-in LAN and the wireless LAN cannot be connected to the same network at the same time. To use both built-in LAN and wireless LAN at the same time, connect them to different networks. (→ page 90, 91)
Steady light	Orange		Control Panel Lock is on	You have pressed cabinet button when Control Panel Lock is on. (→ page 82)
	Green		The projector is in Standby.	–

Lamp Indicator

Indicator Condition		Projector Condition	Note
Off		Normal	–
Blinking light	Red	Lamp has reached its end of life. Lamp replacement message will be displayed.	Replace the lamp. (→ page 110)
Steady light	Red	Lamp has been used beyond its limit. The projector will not turn on until the lamp is replaced.	Replace the lamp. (→ page 110)
	Green	Lamp is in Eco mode	–

Common Problems & Solutions (→ "Power/Status/Lamp Indicator" on page 117)

Problem	Check These Items
Does not turn on	• Check that the power cable is plugged in and that the power button on the projector cabinet or the remote control is on. (→ page 23, 24) • Ensure that the lamp cover is installed correctly. (→ page 112) • Check to see if the projector has overheated. If there is insufficient ventilation around the projector or if the room where you are presenting is particularly warm, move the projector to a cooler location. • Check to see if the lamp usage exceeds 2100 hours (up to 3100 hours : Eco mode). If so, replace the lamp. After replacing the lamp, reset the lamp hours used. (→ page 107) • The lamp may fail to light. Wait a full minute and then turn on the power again.
Will turn off	• Ensure that the Power Management, Off Timer or Program Timer is off. (→ page 97, 99) • Check to see if the lamp usage exceeds 2100 hours (up to 3100 hours : Eco mode). If so, replace the lamp. After replacing the lamp, reset the lamp hours used. (→ page 107)
No picture	• Use the SOURCE button on the projector cabinet or the VIDEO, the S-VIDEO, the COMPUTER 1, the COMPUTER 2, the COMPUTER 3, the COMPONENT, the VIEWER or the LAN button on the remote control to select your source. (→ page 26) • Ensure your cables are connected properly. • Use menus to adjust the brightness and contrast. (→ page 74) • Check to see if the image is muted. (→ page 36) • Remove the lens cap. • Reset the settings or adjustments to factory preset levels using the Reset in the Menu. (→ page 107) • Enter your registered keyword if the Security function is enabled. (→ page 45) • Be sure to connect the projector and notebook PC while the projector is in standby mode and before turning on the power to the notebook PC. In most cases the output signal from the notebook PC is not turned on unless connected to the projector before being powered up. * If the screen goes blank while using your remote control, it may be the result of the computer's screen-saver or power management software. • See also the next page.
Color tone or hue is unusual	• Check if an appropriate color is selected in [Wall Color]. If not, select an appropriate option. (→ page 81) • Adjust [Hue] in [Adjust]. (→ page 74)
Image isn't square to the screen	• Reposition the projector to improve its angle to the screen. (→ page 27) • Use the 3DReform function to correct the trapezoid distortion. (→ page 31)
Picture is blurred	• Adjust the focus. (→ page 29) • Reposition the projector to improve its angle to the screen. (→ page 27) • Ensure that the distance between the projector and screen is within the adjustment range of the lens. (→ page 123, 124) • Condensation may form on the lens if the projector is cold, brought into a warm place and is then turned on. Should this happen, let the projector stand until there is no condensation on the lens.
Image is scrolling vertically, horizontally or both	• Use the SOURCE button on the projector cabinet or the VIDEO, the S-VIDEO, the COMPUTER 1, the COMPUTER 2, the COMPUTER 3, the COMPONENT, the VIEWER or the LAN button on the remote control to select your source (Video, S-Video, Computer, Component, Viewer or LAN). (→ page 26) • Adjust the computer image manually with the [Clock]/[Phase] in [Adjust] → [Image Options]. (→ page 75)
Remote control does not work	• Install new batteries. (→ page 10) • Make sure there are no obstacles between you and the projector. • Stand within 22 feet (7 m) of the projector. (→ page 10) • Check if one or more remote sensors are enabled. Select [Setup] → [Installation] → [Remote Sensor] from the menu. See page 96. • If the remote control cable plug is inserted into the REMOTE mini jack, the remote control does not function wirelessly. See page 11.
Indicator is lit or blinking	• See the POWER/STATUS/LAMP Indicator. (→ page 117)
Vertical stripes in RGB mode	• Press the AUTO ADJUST button on the projector cabinet or the AUTO ADJ. button on the remote control. (→ page 33) • Adjust the computer image manually with the [Clock]/[Phase] in [Adjust] → [Image Options]. (→ page 75)
USB mouse does not work	• Make sure that your USB mouse is properly connected to the projector. (→ page 38) The projector may not support some brands of a USB mouse.

For more information contact your dealer.

If there is no picture, or the picture is not displayed correctly.

- Power on process for the projector and the PC.

 Be sure to connect the projector and notebook PC while the projector is in standby mode and before turning on the power to the notebook PC.

 In most cases the output signal from the notebook PC is not turned on unless connected to the projector before being powered up.

 NOTE: You can check the horizontal frequency of the current signal in the projector's menu under Information. If it reads "0kHz", this means there is no signal being output from the computer. See page 104 or go to next step.

- Enabling the computer's external display.

 Displaying an image on the notebook PC's screen does not necessarily mean it outputs a signal to the projector. When using a PC compatible laptop, a combination of function keys will enable/disable the external display. Usually, the combination of the 'Fn" key along with one of the 12 function keys gets the external display to come on or off. For example, NEC laptops use Fn + F3, while Dell laptops use Fn + F8 key combinations to toggle through external display selections.

- Non-standard signal output from the computer

 If the output signal from a notebook PC is not an industry standard, the projected image may not be displayed correctly. Should this happen, deactivate the notebook PC's LCD screen when the projector display is in use. Each notebook PC has a different way of deactivate/reactivate the local LCD screens as described in the previous step. Refer to your computer's documentation for detailed information.

- Image displayed is incorrect when using a Macintosh

 When using a Macintosh with the projector, set the DIPswitch of the Mac adapter (not supplied with the projector) according to your resolution. After setting, restart your Macintosh for the changes to take affect.

 For setting display modes other than those supported by your Macintosh and the projector, changing the DIP switch on a Mac adapter may bounce an image slightly or may display nothing. Should this happen, set the DIP switch to the 13" fixed mode and then restart your Macintosh. After that, restore the DIP switches to a displayable mode and then restart the Macintosh again.

 NOTE: A Video Adapter cable manufactured by Apple Computer is needed for a PowerBook which does not have a mini D-Sub 15-pin connector.

- Mirroring on a PowerBook

 * When using the projector with a Macintosh PowerBook, output may not be set to 1024 x 768 unless "mirroring" is off on your PowerBook. Refer to owner's manual supplied with your Macintosh computer for mirroring.

- Folders or icons are hidden on the Macintosh screen

 Folders or icons may not be seen on the screen. Should this happen, select [View] → [Arrange] from the Apple menu and arrange icons.

❷ Specifications

This section provides technical information about the projector's performance.

Model Number	8806/8808

Optical

LCD Panel	0.8" p-Si TFT active-matrix with (Aspect ratio 4:3)
Resolution	1024 × 768 pixels* up to UXGA with Advanced AccuBlend (up to 1400 × 1050 @ 60 Hz on DVI-D)
Standard Lens	Manual zoom and focus: F1.7 - 2.2 f=24.4 - 32.6 mm
Lamp	8806 : 280 WAC (252 W in Eco mode) /8808
Light Output	8806 : 3500 lumens (approx.85% in Eco) 8808: 4000 lumens (approx. 85% in Eco)
Contrast Ratio(full white: full black)	800:1
Image Size (Standard lens)	30" - 500" (0.76 m - 12.7 m) diagonal
Lens Options	Fixed lens : NP01FL (throw ratio 0.8:1) Zoom lens : NP02ZL (throw ratio 1.2-1.5:1) NP03ZL (throw ratio 1.9-3.1:1) NP04ZL (throw ratio 3.0-4.8:1) NP05ZL (throw ratio 4.6-7.0:1) Lens Shift : Vertical +/- 0.5V, Horizontal +/- 0.1H

Electrical

Inputs	1 Analog RGB (Mini D-Sub 15 P), 1 Analog RGB R/cr, G/Y, B/cb, H, V (BNC × 5), 1 Digital RGB (DVI-D 24 P), 1 Component Y, Cb/Pb, Cr/Pr (RCA × 3), 1 Component (Mini D-Sub 15 P) shared with COMPUTER 1 IN, 1 S-Video (Mini DIN 4P), 1 Video, 1 PC Card, 3 Stereo Mini Audio, 2 (L/R) RCA Audio, 1 Remote Control (Stereo Mini)
Outputs	1 RGB (Mini D-Sub 15P), 1 Stereo Mini Audio
Slot	1 PC Card slot (PCMCIA Type II)
PC Control	1 PC Control Port (D-Sub 9P)
USB Port	1 A Type
LAN Port	RJ-45
Video Compatibility	NTSC, NTSC4.43, PAL, PAL-60, PAL-N, PAL-M, SECAM, HDTV: 1080i, 1080i/50Hz, 720p, 576p, 576i, 480p, 480i/60Hz
Scan Rate	Horizontal: 15 kHz to 108 kHz (RGB: 24 kHz or over) Vertical: 48 Hz to 120 Hz
Video Bandwidth	RGB: 100 MHz (-3dB)
Color Reproduction	16.7 million colors simultaneously, Full color
Horizontal Resolution	NTSC / NTSC4.43 / PAL / PAL-M / PAL-N / PAL60: 540 TV lines SECAM: 300 TV lines RGB: 1024 dots (H) × 768 dots (V)
External Control	RS232, IR, LAN, USB
Sync Compatibility	Separate Sync / Composite Sync / Sync on G
Built-in Speakers	5W × 2
Power Requirement	100 - 240V AC, 50/60Hz
Input Current	4.6A
Power Consumption	435W in Lamp Normal mode 365W in Lamp Eco mode 16W in Standby

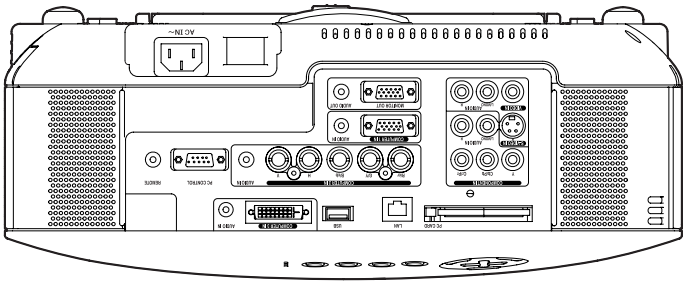
* Effective pixels are more than 99.99%.

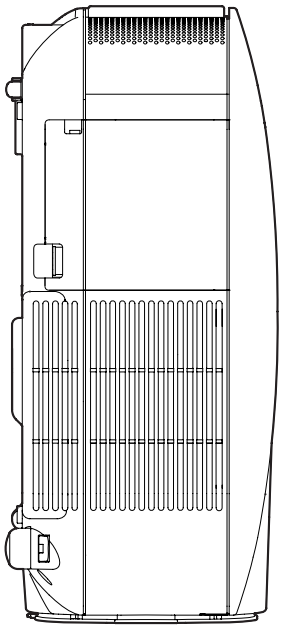
Mechanical

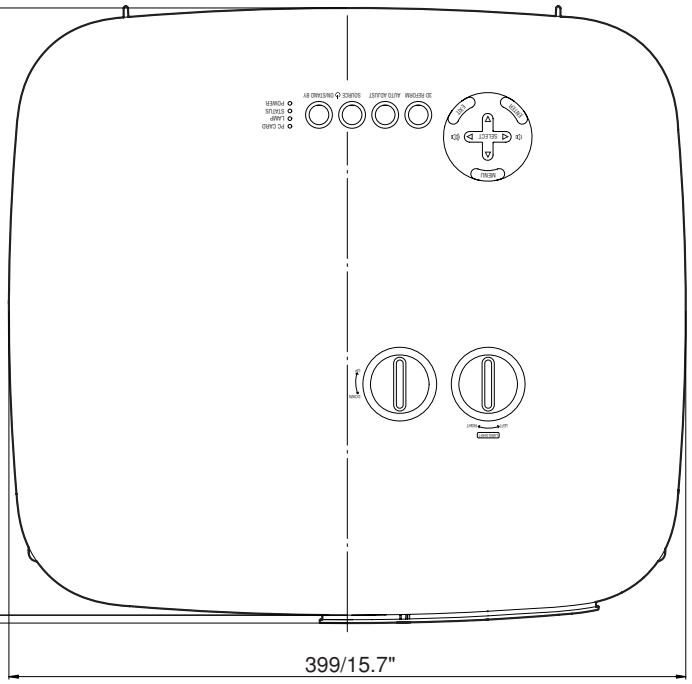
Installation	Orientation: Desktop/Front, Desktop/Rear, Ceiling/Front, Ceiling/Rear
Dimensions	15.7" (W) × 5.9" (H) × 14.1" (D) 399 mm (W) × 150.5 mm (H) × 358 mm (D) (not including protrusions)
Weight	16.1 lbs/7.3 kg
Environmental Considerations	
Operational Temperatures :	
	41° to 104°F / 5° to 40°C, (Eco mode selected automatically at 95° to 104°F/35° to 40°C), 20% to 80% humidity (non-condensing)
Storage Temperatures :	
	14° to 122°F (-10° to 50°C), 20% to 80% humidity (non-condensing)
Regulations	UL/C-UL Approved (UL 60950-1, CSA 60950-1) Meets DOC Canada Class B requirements Meets FCC Class B requirements Meets AS/NZS CISPR.22 Class B Meets EMC Directive (EN55022, EN55024, EN61000-3-2, EN61000-3-3) Meets Low Voltage Directive (EN60950-1, TÜV GS Approved) CE

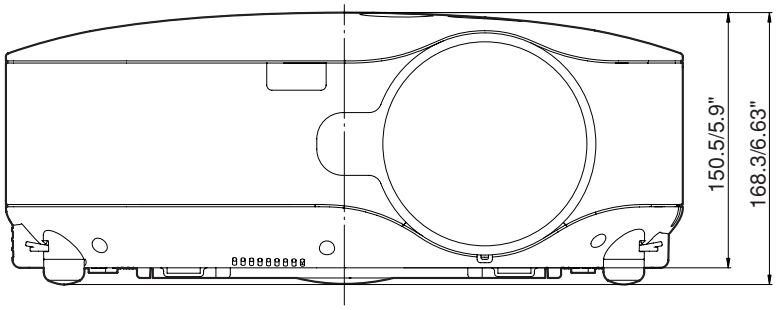
For additional information visit:
US : http://www.dukcorp.com/av

❸ Cabinet Dimensions







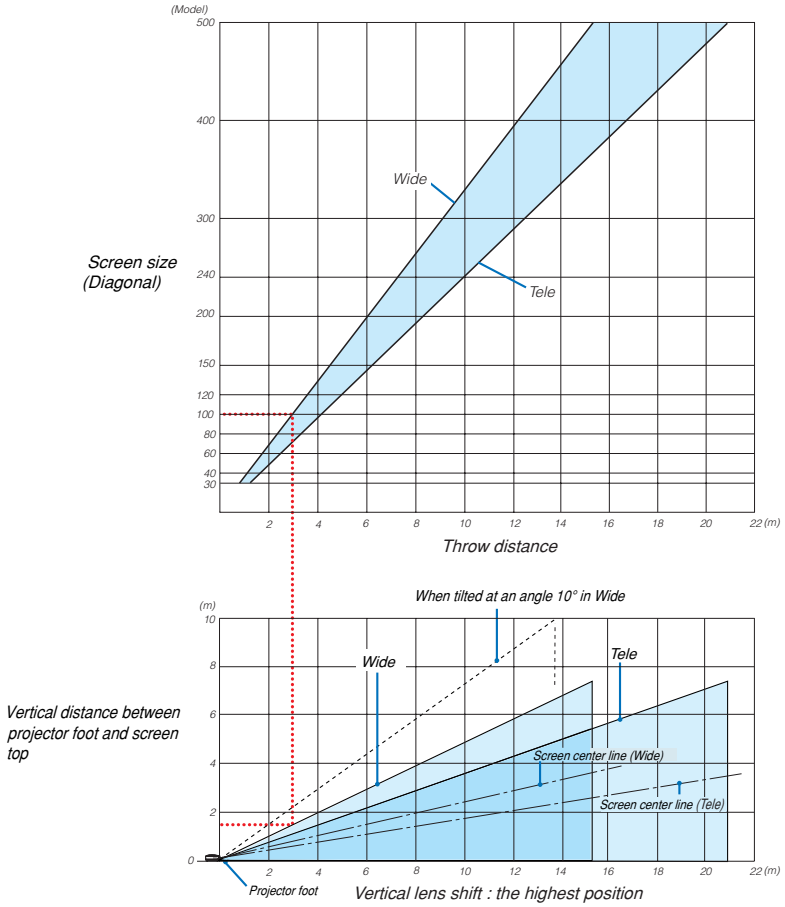


Unit: mm/inch

❹ Screen Size and Projection Distance

This section should be used when considering the distance to the screen and the screen size.

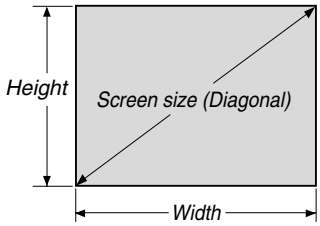
Available projection distances are 1.0 m/41.2 inches for 30" screen to 18 m/718 inches for 500" screen, according to the chart.



Using the Chart

Example for 100" screen:
The projection distance is approximately 3.1 m (122") according to the upper chart.
The lower chart shows that the vertical distance between the projector foot and the screen top is approximately 1.5 m (59"). The projection angle can be adjusted up to 10°. (The lower chart shows that the projector is placed in a horizontal position)

List of Screen Sizes



List of Screen Sizes

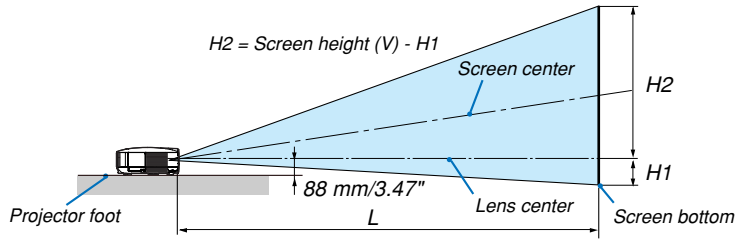
Screen size	Width (H)		Height (V)	
	m	inch	m	inch
30"	0.6	24.0	0.46	18.0
40"	0.8	31.5	0.6	23.6
60"	1.2	47.2	0.9	35.4
80"	1.6	63.0	1.2	47.2
100"	2.0	78.7	1.5	59.1
120"	2.4	94.5	1.8	70.9
150"	3.0	118.1	2.3	90.6
200"	4.1	161.4	3.0	118.1
250"	5.1	200.8	3.8	149.6
300"	6.1	240.2	4.6	181.1
400"	8.1	318.9	6.1	240.2
500"	10.2	401.6	7.6	299.2

Formulas: Screen width H (m)=Screen size x 4/5 x 0.0254
Screen height V (m)=Screen size x 3/5 x 0.0254
Screen width H (inch)=Screen size x 4/5
Screen height V (inch)=Screen size x 3/5

Screen Size and Projection Distance for Desktop when the standard lens is used

The following drawing shows an example for use of Desktop.
Horizontal projection position: Lens centered left to right
Vertical projection position: See the table below.

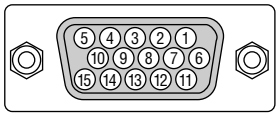
Screen size (diagonal)	STANDARD			
	Projection Distance (L)		(H1)	
	(m)	(inches)		
	Wide - Tele	Wide - Tele	(cm)	(inches)
30"	0.89 - 1.20	35.1 - 47.3	0-23	0-9.0
40"	1.20 - 1.62	47.4 - 63.8	0-30	0-12.0
60"	1.83 - 2.45	72.2 - 96.6	0-46	0-18.0
67"	2.05 - 2.75	80.8 - 108.2	0-51	0-20.1
72"	2.21 - 2.96	87.0 - 116.4	0-55	0-21.6
80"	2.46 - 3.29	96.9 - 129.5	0-61	0-24.0
84"	2.59 - 3.46	101.8 - 136.1	0-64	0-25.2
90"	2.78 - 3.71	109.3 - 146.0	0-69	0-27.0
100"	3.09 - 4.13	121.6 - 162.4	0-76	0-30.0
120"	3.72 - 4.96	146.3 - 195.3	0-91	0-36.0
150"	4.66 - 6.21	183.4 - 244.6	0-114	0-45.0
180"	5.60 - 7.47	220.5 - 294.0	0-137	0-54.0
200"	6.23 - 8.30	245.3 - 326.9	0-152	0-60.0
210"	6.54 - 8.72	257.6 - 343.3	0-160	0-63.0
240"	7.49 - 9.97	294.7 - 392.6	0-183	0-72.0
250"	7.80 - 10.39	307.1 - 409.1	0-191	0-75.0
270"	8.43 - 11.23	331.8 - 442.0	0-206	0-81.0
300"	9.37 - 12.48	368.9 - 491.3	0-229	0-90.0
400"	12.51 - 16.66	492.5 - 655.8	0-305	0-120.0
500"	15.65 - 20.83	616.2 - 820.2	0-381	0-150.0



NOTE: Distances may vary +/-5%.

❺ Pin Assignments of D-Sub COMPUTER 1 Input Connector

Mini D-Sub 15 Pin Connector



Signal Level
Video signal : 0.7Vp-p (Analog)
Sync signal : TTL level

Pin No.	RGB Signal (Analog)	YCbCr Signal
1	Red	Cr
2	Green or Sync on Green	Y
3	Blue	Cb
4	Ground	
5	Ground	
6	Red Ground	Cr Ground
7	Green Ground	Y Ground
8	Blue Ground	Cb Ground
9	No Connection	
10	Sync Signal Ground	
11	SCART Sync	
12	Bi-directional DATA (SDA)	
13	Horizontal Sync or Composite Sync	
14	Vertical Sync	
15	Data Clock	

❻ Compatible Input Signal List

	Signal	Resolution (Dots)	Frequency H. (kHz)	Refresh Rate (Hz)
	NTSC	–	15.73	60.00
	PAL	–	15.63	50.00
	PAL60	–	15.73	60.00
	SECAM	–	15.63	50.00
D	VESA	640 × 480	31.47	59.94
D	IBM	640 × 480	31.48	59.95
D	MAC	640 × 480	35.00	66.67
D	VESA	640 × 480	37.86	72.81
D	VESA	640 × 480	37.50	75.00
D	IBM	640 × 480	39.38	75.00
D	VESA	640 × 480	43.27	85.01
D	VESA	800 × 600	35.16	56.25
D	VESA	800 × 600	37.88	60.32
D	VESA	800 × 600	48.08	72.19
D	VESA	800 × 600	46.88	75.00
D	VESA	800 × 600	53.67	85.06
D	MAC	832 × 624	49.72	74.55
D	VESA	1024 × 768	48.36	60.00
D	VESA	1024 × 768	56.48	70.07
D	MAC	1024 × 768	60.24	74.93
D	VESA	1024 × 768	60.02	75.03
D	VESA	1024 × 768	68.68	85.00
D	VESA	1152 × 864	67.50	75.00
D	SUN	1152 × 900	61.80	65.95
D	VESA	1280 × 960	60.00	60.00
D	VESA	1280 × 1024	63.98	60.02
	MAC	1280 × 1024	69.87	65.18
D	SXGA+	1400 × 1050	–	60.00
	VESA	1600 × 1200	75.00	60.00
	VESA	1600 × 1200	81.25	65.00
	VESA	1600 × 1200	87.50	70.00
	VESA	1600 × 1200	93.75	75.00
D	HDTV (1080i)(1125i)	1920 × 1080	33.75	60.00 Interlace
D	HDTV (1080i)(1125i)	1920 × 1080	28.13	50.00 Interlace
D	HDTV (720p)(750p)	1280 × 720	45.00	60.00 Progressive
D	HDTV (720p)	1280 × 720	37.50	50.00 Progressive
D	SDTV(576p)(625p)	–	31.25	50.00 Progressive
D	SDTV (480p)(525p)	–	31.47	59.94 Progressive
	DVD YCbCr	–	15.73	59.94 Interlaced
	DVD YCbCr	–	15.63	50.00 Interlaced

D: Images above flagged with "D" are supported by digital signal.

NOTE:

- *Advanced AccuBlend technology is an intelligent pixel blending technology that displays scaled high and low resolution images with true resolution.*
 An image with higher or lower resolution than the projector's native resolution (1024 x 768) will be displayed with the Advanced AccuBlend.
- *Some composite sync signals may not be displayed correctly.*
 Signals other than those specified in the table above may not be displayed correctly. If this should happen, change the refresh rate or resolution on your PC. Refer to Display Properties help section of your PC for procedures.

7 PC Control Codes and Cable Connection

PC Control Codes

Function	Code Data										
POWER ON	02H	00H	00H	00H	00H	02H					
POWER OFF	02H	01H	00H	00H	00H	03H					
INPUT SELECT COMPUTER 1	02H	03H	00H	00H	02H	01H	01H	09H			
INPUT SELECT COMPUTER 2	02H	03H	00H	00H	02H	01H	02H	0AH			
INPUT SELECT COMPUTER 3	02H	03H	00H	00H	02H	01H	1AH	22H			
INPUT SELECT COMPONENT	02H	03H	00H	00H	02H	01H	10H	18H			
INPUT SELECT VIDEO	02H	03H	00H	00H	02H	01H	06H	0EH			
INPUT SELECT S-VIDEO	02H	03H	00H	00H	02H	01H	0BH	13H			
INPUT SELECT VIEWER	02H	03H	00H	00H	02H	01H	1FH	27H			
PICTURE MUTE ON	02H	10H	00H	00H	00H	12H					
PICTURE MUTE OFF	02H	11H	00H	00H	00H	13H					
SOUND MUTE ON	02H	12H	00H	00H	00H	14H					
SOUND MUTE OFF	02H	13H	00H	00H	00H	15H					
ON SCREEN MUTE ON	02H	14H	00H	00H	00H	16H					
ON SCREEN MUTE OFF	02H	15H	00H	00H	00H	17H					
ASPECT RATIO (4:3 Screen)											
4:3	03H	10H	00H	00H	05H	18H	00H	00H	00H	00H	30H
Letterbox	03H	10H	00H	00H	05H	18H	00H	00H	01H	00H	31H
Widescreen	03H	10H	00H	00H	05H	18H	00H	00H	02H	00H	32H
Crop	03H	10H	00H	00H	05H	18H	00H	00H	03H	00H	33H
ASPECT RATIO (16:9 Screen)											
4:3 Window	03H	10H	00H	00H	05H	18H	00H	00H	00H	00H	30H
Letterbox	03H	10H	00H	00H	05H	18H	00H	00H	01H	00H	31H
Widescreen	03H	10H	00H	00H	05H	18H	00H	00H	02H	00H	32H
4:3 Fill	03H	10H	00H	00H	05H	18H	00H	00H	04H	00H	34H
AUTO ADJUST	02H	0FH	00H	00H	02H	05H	00H	18H			

NOTE: Contact your local dealer for a full list of PC Control Codes if needed.

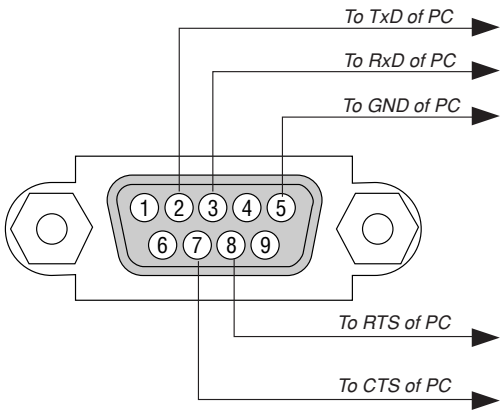
Cable Connection

Communication Protocol

- Baud rate 38400 bps
- Data length 8 bits
- Parity No parity
- Stop bit One bit
- X on/off None
- Communications procedure Full duplex

NOTE: Depending on the equipment, a lower baud rate may be recommended for long cable runs.

PC Control Connector (D-SUB 9P)

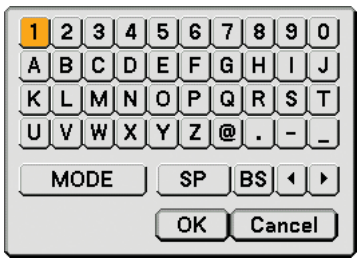


NOTE 1: Pins 1, 4, 6 and 9 are no used.

NOTE 2: Jumper "Request to Send" and "Clear to Send" together on both ends of the cable to simplify cable connection.

NOTE 3: For long cable runs it is recommended to set communication speed within projector menus to 9600 bps.

❽ Using Software Keyboard



1 to 0 and Characters
..... Use to type in password or keyword.
MODE Selects one of three modes for alphabet and special characters.
SP Inserts a space
BS Deletes one character backward
◀ Returns to the previous
▶ Advances to the next
OK Executes the selection
Cancel Cancels the selection

NOTE: You can drag the Software keyboard on the screen by clicking and holding any part on the keyboard except buttons.

❾ Troubleshooting Check List

Before contacting your dealer or service personnel, check the following list to be sure repairs are needed also by referring to the “Troubleshooting” section in your user’s manual. This checklist below will help us solve your problem more efficiently.

* Print the following pages.

Frequency of occurrence ☐ always ☐ sometimes (How often?_____) ☐ other (_____)

Power

- ☐ No power (POWER indicator does not light green) See also “Status Indicator (STATUS)”.
 - ☐ Power cable's plug is fully inserted into the wall outlet.
 - ☐ Main power switch is pressed to the ON position.
 - ☐ Lamp cover is installed correctly .
 - ☐ Lamp Hours Used (lamp operation hours) was cleared after lamp replacement.
 - ☐ No power even though you press and hold the POWER button for a minimum of 2 seconds.
- ☐ Shut down during operation.
 - ☐ Power cable's plug is fully inserted into the wall outlet.
 - ☐ Lamp cover is installed correctly .
 - ☐ Power Management is turned off (only models with the Power Management function).
 - ☐ Off Timer is turned off (only models with the Off Timer function).

Video and Audio

- ☐ No image is displayed from your PC or video equipment to the projector.
 - ☐ Still no image even though you connect the projector to the PC first, then start the PC.
 - ☐ Enabling your notebook PC’s signal output to the projector.
 - *A combination of function keys will enable/disable the external display. Usually, the combination of the “Fn” key along with one of the 12 function keys turns the external display on or off.*
 - ☐ No image (blue background, logo, no display).
 - ☐ Still no image even though you press the AUTO ADJUST button.
 - ☐ Still no image even though you carry out [Reset] in the projector’s menu.
 - ☐ Signal cable's plug is fully inserted into the input connector
 - ☐ A message appears on the screen. (_____)
 - ☐ The source connected to the projector is active and available.
 - ☐ Still no image even though you adjust the brightness and/or the contrast.
 - ☐ Input source's resolution and frequency are supported by the projector.
- ☐ Image is too dark.
 - ☐ Remains unchanged even though you adjust the brightness and/or the contrast.
- ☐ Image is distorted.
 - ☐ Image appears to be trapezoidal (unchanged even though you carry out the [Keystone] or [3D Reform] adjustment).
- ☐ Parts of the image are lost.
 - ☐ Still unchanged even though you press the AUTO ADJUST button.
 - ☐ Still unchanged even though you carry out [Reset] in the projector’s menu.
- ☐ Image is shifted in the vertical or horizontal direction.
 - ☐ Horizontal and vertical positions are correctly adjusted on a computer signal.
 - ☐ Input source's resolution and frequency are supported by the projector.
 - ☐ Some pixels are lost.
- ☐ Image is flickering.
 - ☐ Still unchanged even though you press the AUTO ADJUST button.
 - ☐ Still unchanged even though you carry out [Reset] in the projector’s menu.
 - ☐ Image shows flickering or color drift on a computer signal.
- ☐ Image appears blurry or out of focus.
 - ☐ Still unchanged even though you checked the signal’s resolution on PC and changed it to projector’s native resolution.
 - ☐ Still unchanged even though you adjusted the focus.
- ☐ No sound.
 - ☐ Audio cable is correctly connected to the audio input of the projector.
 - ☐ Still unchanged even though you adjusted the volume level.
 - ☐ AUDIO OUT is connected to your audio equipment (only models with the AUDIO OUT connector).

Other

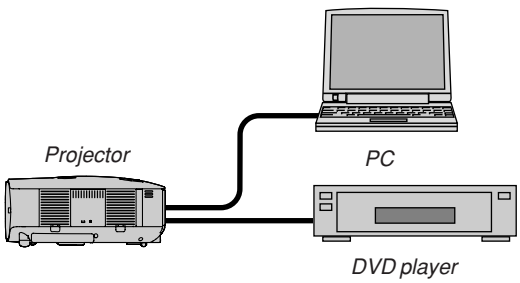
- ☐ Remote control does not work.
 - ☐ No obstacles between the sensor of the projector and the remote control.
 - ☐ Projector is placed near a fluorescent light that can disturb the infrared remote controls.
 - ☐ Batteries are new and are not reversed in installation.
 - ☐ If present on the remote control, projector selector switch is not used.
- ☐ Buttons on the projector cabinet do not work (only models with the Control Panel Lock function).
 - ☐ Control Panel Lock is not turned on or is disabled in the menu.
 - ☐ Still unchanged even though you press and hold the EXIT button for a minimum of 10 seconds.

In the space below please describe your problem in detail.

Information on application and environment where your projector is used

Projector

Model number:
Serial No.:
Date of purchase:
Lamp operating time (hours):
Lamp Mode: ☐ Normal ☐ Eco
Information on input signal:
Horizontal synch frequency [] kHz
Vertical synch frequency [] Hz
Synch polarity H ☐ (+) ☐ (–)
V ☐ (+) ☐ (–)
Synch type ☐ Separate ☐ Composite
☐ Sync on Green
STATUS Indicator:
Steady light ☐ Orange ☐ Green
Flashing light [] cycles
Remote control model number:



Signal cable

NEC standard or other manufacturer's cable?
Model number: Length: inch/m
Distribution amplifier
Model number:
Switcher
Model number:
Adapter
Model number:

Installation environment

Screen size: inch
Screen type: ☐ White matte ☐ Beads ☐ Polarization
☐ Wide angle ☐ High contrast
Throw distance: feet/inch/m
Orientation: ☐ Ceiling mount ☐ Desktop
Power outlet connection:
☐ Connected directly to wall outlet
☐ Connected to power cord extender or other (the number of connected equipment_____)
☐ Connected to a power cord reel or other (the number of connected equipment_____)

Computer

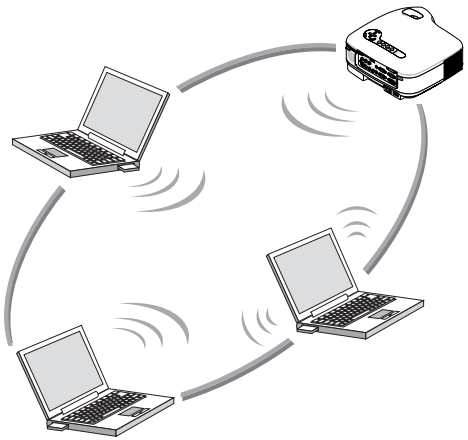
Manufacturer:
Model number:
Notebook PC ☐ / Desktop ☐
Native resolution:
Refresh rate:
Video adapter:
Other:

Video equipment

VCR, DVD player, Video camera, Video game or other
Manufacturer:
Model number:

DukaneProjectorModel 8806

Wired and Wireless Network Setup Guide



1. What You Can Do with User Supportware 3 — 1
2. Operating Environment — 2
3. Connecting LAN Cable — 3
4. Attaching LAN Card — 4
5. Setting the LAN Setting of Projector — 5
6. Setting the LAN Setting of Personal Computer ([Example] Wireless LAN of Windows XP:Ad Hoc connection) — 6
7. Refer to “User’s Guide” and Help — 7

CD-ROM
User Supportware 3

This manual describes the LAN settings to use the software programs included in the supplied User Supportware 3 CD-ROM. For how to operate each software program, refer to “User’s Guide” (PDF) on User Supportware 3 CD-ROM.

Introduction

Thank you for purchasing the projector (hereafter referred to as the "projector").
The projector is equipped with the following features so that you can give effective presentations.

- LAN port (RJ-45), USB port (type A), PC card slot (TYPE II) supplied as standard
- Viewer that displays images from a flash memory card*1 and USB memory*1
- Wireless LAN card supplied as an option*2

*1 The projector is not supplied with a flash memory card or USB memory.

The projector is also supplied with User Supportware 3 CD-ROM in which five programs of software are stored for effective use of these features. The software stored on this CD-ROM are as follows.
Each program runs on Windows XP and Windows 2000.

- Image Express Utility 2.0
- Desktop Control Utility 1.0
- Ulead Photo Explorer 8.0 SE Basic
- Viewer PPT Converter 3.0
- PC Control Utility 3.0

This document explains how to configure the LAN settings to use the above software programs.
For details of operations, refer to "User Supportware 3 User's Guide" on User Supportware 3 CD-ROM and help function of the software.
For the network settings on the personal computer, refer to the User's Manual for the personal computer or the peripheral equipment for the network.
Use a wireless LAN card conforming to the Wi-Fi standard for your personal computer.

NOTES

(1) The contents of this guide may not be reprinted in part or whole without permission.
(2) The contents of this guide are subject to change without notice.
(3) Great care has been taken in the preparation of this guide; however, should you notice any questionable points, errors or omissions, please contact us.
(4) Notwithstanding article (3), Dukane will not be responsible for any claims on loss of profit or other matters deemed to result from using the Projector.
(5) Guides with incorrect collating or missing pages will be replaced.

Cautions on Usage

⚠ Warning

- A wireless LAN card is not meant for use with facilities or equipment involving the safeguard of human life, such as medical equipment, nuclear facilities or equipment, aeronautical or space equipment, transportation facilities or equipment, etc., or with facilities or equipment requiring high levels of reliability. Do not use the card in such cases.
- Do not use a wireless LAN card near cardiac pacemakers.
- Do not use a wireless LAN card near medical equipment. Doing so may cause electromagnetic interference with the medical equipment, possible leading to death.
- Do not disassemble or modify a wireless LAN card in any way. Doing so could lead to fire or electric shock.
- Do not use a wireless LAN card in wet or moist places, such as in bathrooms or near humidifiers. Doing so could lead to fire, electric shock or malfunctions.

⚠ Caution

To prevent damage due to static electricity, eliminate any static electricity from your body before touching a wireless LAN card.

- Static electricity from the human body may damage a wireless LAN card. Before touching the card, touch an aluminum window frame, a door knob, or some other metal object around you to eliminate the static electricity.

⚠ Caution

The radio waves used by a wireless LAN card pass through the wood or glass used in normal homes (but not through window panes with built-in metallic mesh).
The radio waves do not pass through iron reinforcing bars, metal or concrete, so a wireless LAN card cannot be used for communicating through walls or floors made with these materials.

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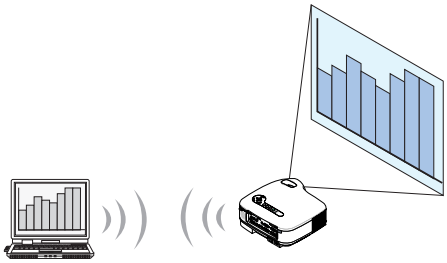
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1. What You Can Do with User Supportware 3

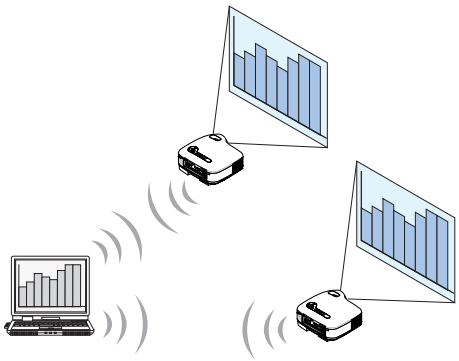
1-1. Image Express Utility 2.0

Image Express Utility 2.0 is a software tool used to send the screen of your personal computer to the projector via a network, without the signal cables.

- **High-speed, high-quality image transmissions based on an original compression algorithm**
 NEC's original compression algorithm allows high-quality images to be sent over the network at high speed, from your personal computer to the projector.

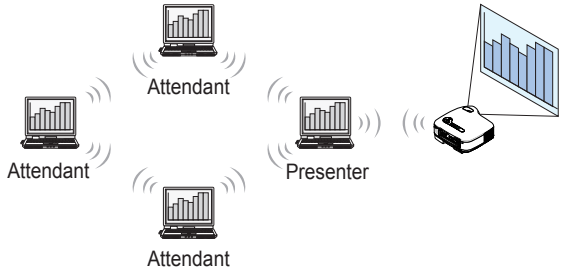


- **Simultaneous projection by multiple projectors**
 Images can be sent from a personal computer to not only one projector but also to two or more projectors at the same time.



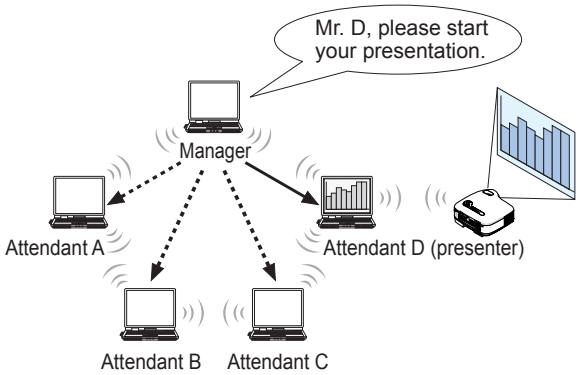
- **"Easy Connection" function for connecting wireless LAN**
 By using "Easy Connection" function*1, the complicated setting of wireless LAN can be simplified.
 *1 This function can be used when Windows XP is used as the OS and when you have a "Computer Administrator" privilege. The communication mode is set to "802.11 Ad Hoc".
 The "Easy Connection" function cannot be used with Windows 2000.

- **Projected images can be transferred and saved to personal computers.**
 When “Meeting Mode” is used, projected images can be sent to the personal computers of all the participants (attendants) of a “Meeting”. The received images can be saved to your personal computer with a memo (text data) attached.



- **1-click switching of presenter**
 When switching to another presenter during the conference, the participants (attendants) can simply click a button to switch over to the new presenter.

- **Central management of the projecting personal computer**
 Using the Training Mode allows you to use a single personal computer (Manager) to manage which personal computer (Attendant) projects. Possible operation includes switching projecting personal computers to project from, as well as temporarily terminating communication with the projector.



Note

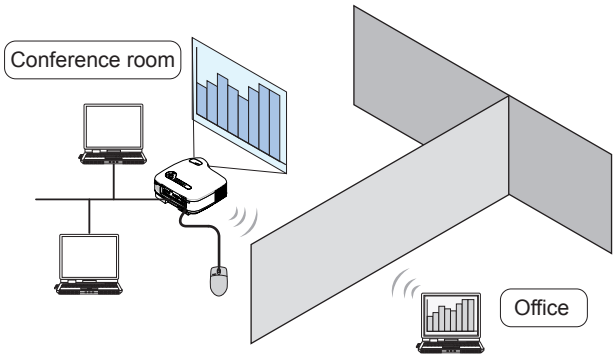
The Training Mode is not installed via the “Typical” installation option when Image Express Utility 2.0 is installed.
To use Training Mode, select “Extension” installation option on the install selection screen that is displayed while Image Express Utility 2.0 installation is in progress, and select “Training Mode (Attendant)” or “Training Mode (Manager)”.

1-2. Desktop Control Utility 1.0

Desktop Control Utility 1.0 is software that operates the desktop screen of a personal computer at a remote location from the projector by using a network.

- A commercially available USB mouse is connected to the projector to operate the personal computer.

- Suppose, for example, a PowerPoint file to be presented in a conference is saved to a personal computer in your office. If this personal computer is connected to the projector in the conference room with LAN when the conference is held, the desktop screen of the personal computer in your office (Windows XP/2000) can be projected and the PowerPoint file can be presented by operating the projector. In other words the personal computer does not need to be brought into the conference room.



Important

- You can use the Desktop Control Utility 1.0 to operate a personal computer located in a separate room from the projector over a network. Therefore, care must be exercised to prevent any third party from viewing the screen of your personal computer (important documents), copying files, or turning off the power.
 NEC assumes no liability for any loss or damages arising from information leak or system failure while you are using Desktop Control Utility 1.0.
- In the Windows operating system, click [Control Panel] → [Performance and Maintenance] → [Power Options] → [System Standby] → [Never]. This will disconnect LAN connection when the personal computer goes in the standby mode while the Desktop Control Utility 1.0 is being used.
- The screen saver function is off while Desktop Control Utility 1.0 is running.

1-3. Ulead Photo Explorer 8.0 SE Basic

Ulead Photo Explorer 8.0 SE Basic (hereafter referred to as “Ulead Photo Explorer 8.0”) is a multimedia image file management tool developed by Ulead Systems, Inc. This tool has functions to capture images from a digital camera or scanner and to process or edit images, as well as image file management functions. In addition, slideshows and screen savers can also be easily created.

- Ulead Photo Explorer 8.0 in the User Supportware 3 CD-ROM has functions that allow you to use the projector more conveniently, in addition to the functions that come with the software.

 Additional functions are listed below.
 For details of each function, refer to the help function of Ulead Photo Explorer 8.0.
 - **Image transmission**
 Sends images to the projector.
 - **PowerPoint file conversion**
 Converts a PowerPoint file into an image file.
 - **Logo transfer**
 Registers an image file as the logo data of the projector.
 - **Capture**
 Saves the screens of the personal computer as image files.
 - **Slideshow start**
 Sends the image of a slideshow to the projector and executes the slideshow on the projector.
 - **Viewer output**
 Converts a slideshow into an index file that can be played back by the viewer function of the projector and outputs the index file.
 - **Connection destination selection**
 Select the projector to connect.

- The personal computer and projector may be connected with wired LAN or wireless LAN.

1-4. Viewer PPT Converter 3.0

Viewer PPT Converter 3.0 is software that converts files created with PowerPoint 95/97/ 2000/ 2002/2003 into an index file that can be displayed with the viewer function of the projector.

- When converting, specify a flash memory card or USB memory as the destination to which the index file is to be saved. Then you can easily make your presentation by simply inserting the flash memory card or USB memory into the projector (viewer function of the projector).

- If PowerPoint 2000/2002/2003 is installed in your personal computer, you can activate Viewer PPT Converter 3.0 from PowerPoint (PPT Converter add-in is automatically registered to PowerPoint).

1-5. PC Control Utility 3.0

PC Control Utility 3.0 is software that allows you to operate the projector from the personal computer when the personal computer and the projector are connected with LAN (wired or wireless) or a serial cable.

- You can operate the projector as follows from your personal computer.
 For details of each function, refer to the help function of PC Control Utility 3.0.

 - Power on/off
 - Input signal switching
 - Muting (temporarily disabling audio/video)
 - Freezing (locking the projected image)
 - Logo image transmission

2. Operating Environment

2-1. Supported Projector

User Supportware 3 supports the following projector (as of October 2005)

Dukane	8806

Reference PC Control Utility 3.0 can be used with projectors other than the above projectors. For details, refer to the help function of PC Control Utility 3.0.

2-2. Operating Environment

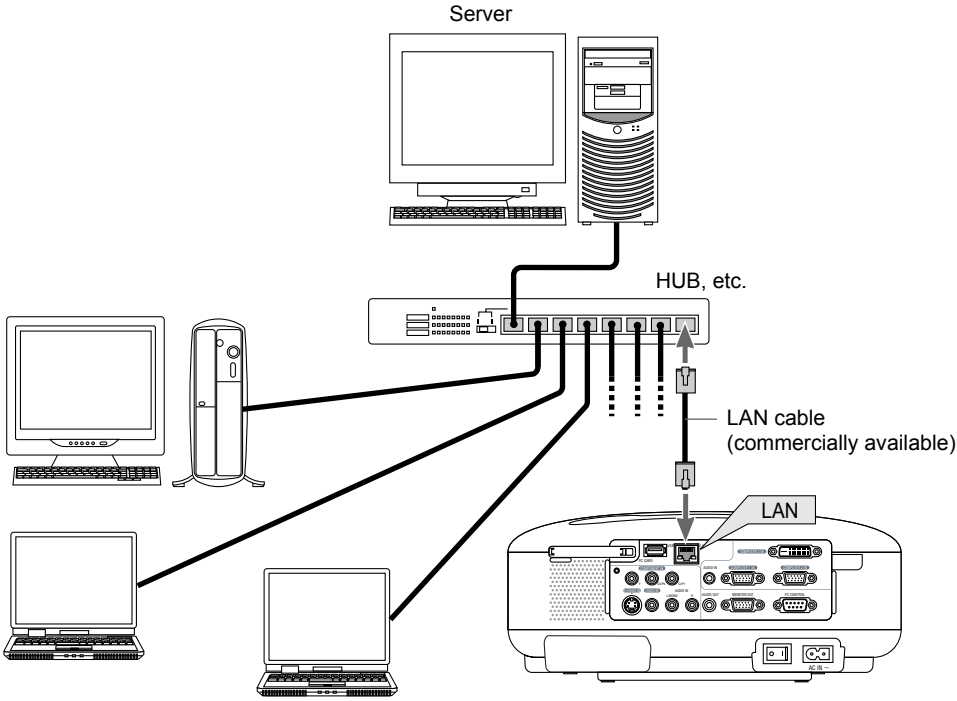
The following is the operating environment for Image Express Utility 2.0. For the operating environment of other software, please refer to the help function of each software.

Supported OS	Windows 2000 Professional Windows XP Home Edition Windows XP Professional Windows XP Tablet PC Edition • Windows power-saving function is not supported. • The "Easy Connection" only supports the "Computer Administrator" authority of Windows XP.
Supported hardware	IBM PC/AT compatible personal computers CD-ROM drive required for installation
CPU	Sender personal computer Pentium MMX processor or higher required Pentium 800 MHz or higher recommended Recipient personal computer Pentium III 800 MHz or higher required Pentium III 1.2 GHz or higher recommended
Memory	Windows XP 128 MB or more required (192 MB or more recommended) • More memory may be necessary if other applications run at the same time. Windows 2000 64 MB or more required (128 MB or more recommended) • More memory may be necessary if other applications run at the same time.
Network environment	TCP/IP-compatible LAN or wireless LAN environment required
Resolution	1024 dots × 768 lines recommended
Screen Colors	High Color (15 bits, 16 bits) True Color (24 bits, 32 bits) • 256 or fewer colors are not supported.

Reference If the communication mode has been set to “802.11 Ad Hoc” for wireless LAN of the projector, IEEE802.11b specification (maximum transmission speed of 11 Mbps) is applied.

3. Connecting LAN Cable

Connect a LAN cable to the LAN port (RJ-45) of the projector when connecting the projector to wired LAN.
After connecting LAN cable to the projector, set the required settings for the projector (page 24).



4. Attaching Wireless LAN Card

Insert the wireless LAN card into the PC card slot on the rear panel of the projector.

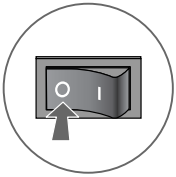
Important

- The wireless LAN card must be inserted into the PC card slot in the correct direction. It cannot be inserted in the reverse direction. If the card is inserted in the reverse direction with excessive force applied, the pins in the projector and the PC card slot may break. Be sure to insert the wireless LAN card with its label facing up.
- Before touching the LAN card, touch a metallic object (such as a door knob or aluminum window frame) to discharge the static electricity from your body.

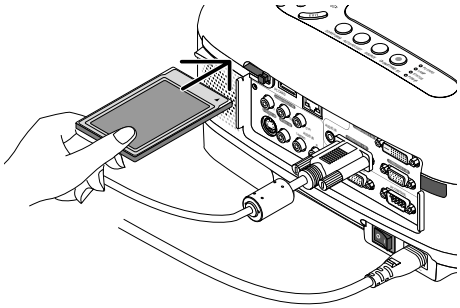
• Always insert or remove the wireless LAN card when the main power is turned off. Failure to do so may cause projector malfunction or damage to wireless LAN card. If the projector will not work correctly, turn off the projector, wait 30 seconds, and turn it back on.

■ Setting card in PC card slot

1 Press POWER (ON/STAND BY) button to set the projector to Stand-by mode, press the "O (off)" side of the main power switch of the projector.



2 With the label on the wireless LAN card facing up, slowly insert the card into the slot horizontally.

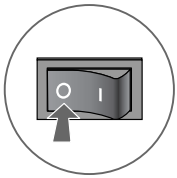


Note

Do not apply any excessive force while inserting the card.

■ Removing card from PC card slot

1 Press POWER (ON/STAND BY) button to set the projector to Stand-by mode, press the "O (off)" side of the main power switch of the projector.

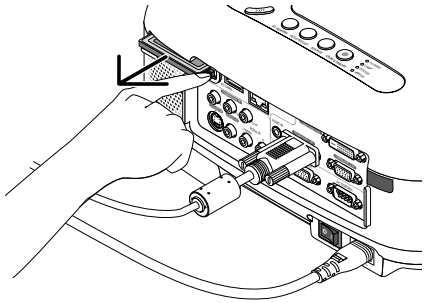


2 Slowly press the PC card eject button.

The PC card eject button will slightly come forward.

3 Slowly press the PC card eject button once again.

The inserted card will slightly come forward.



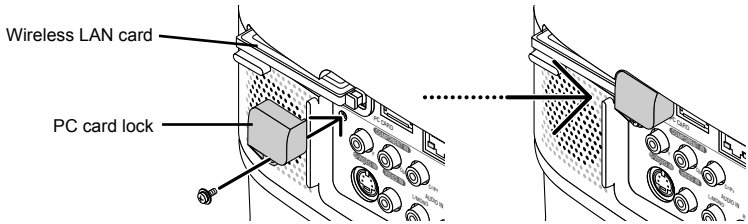
4 Slowly pull out the card.

Reference

PC Card Lock

The supplied PC card lock prevents the wireless LAN card from being ejected use. Some PC cards cannot be used based on their size and shape.

Use the supplled screw to fix the PC card lock.



5. Setting the LAN Setting of Projector

Reference For how to turn on/off the power to the projector and how to operate the buttons and remote control of the projector, refer to “User’s Manual” included in the User’s Manual CD-ROM.

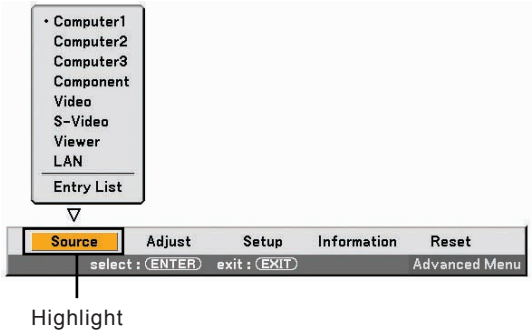
5-1. Displaying On-Screen Menu (LAN Mode)

Preparation:

Turn on the power to the projector and project images to the screen.
It is not necessary to select the signals.

1 Press the (MENU) button.

The on-screen menu will be displayed.

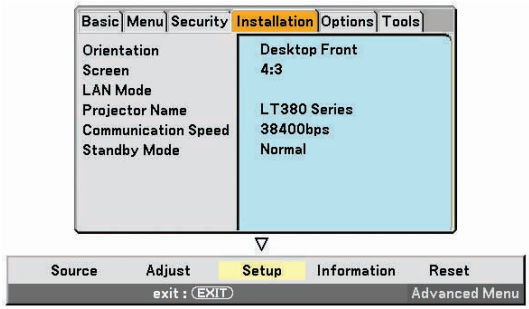


2 Use the (SELECT ▶) button to select the Setup submenu.

3 Press the (ENTER) button.

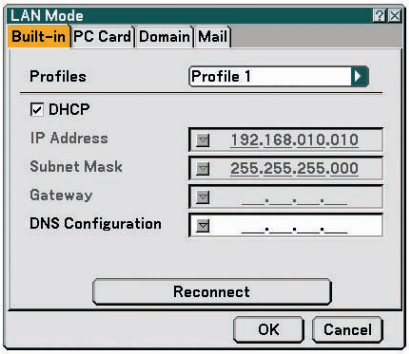
The “Basic” tab will be highlighted.

4 Press the (SELECT ▶) button three times to highlight the "Installation" tab.



5 Press the (SELECT ▼) button three times to highlight "LAN Mode", and press the (ENTER) button.

The "LAN Mode" screen will be displayed.

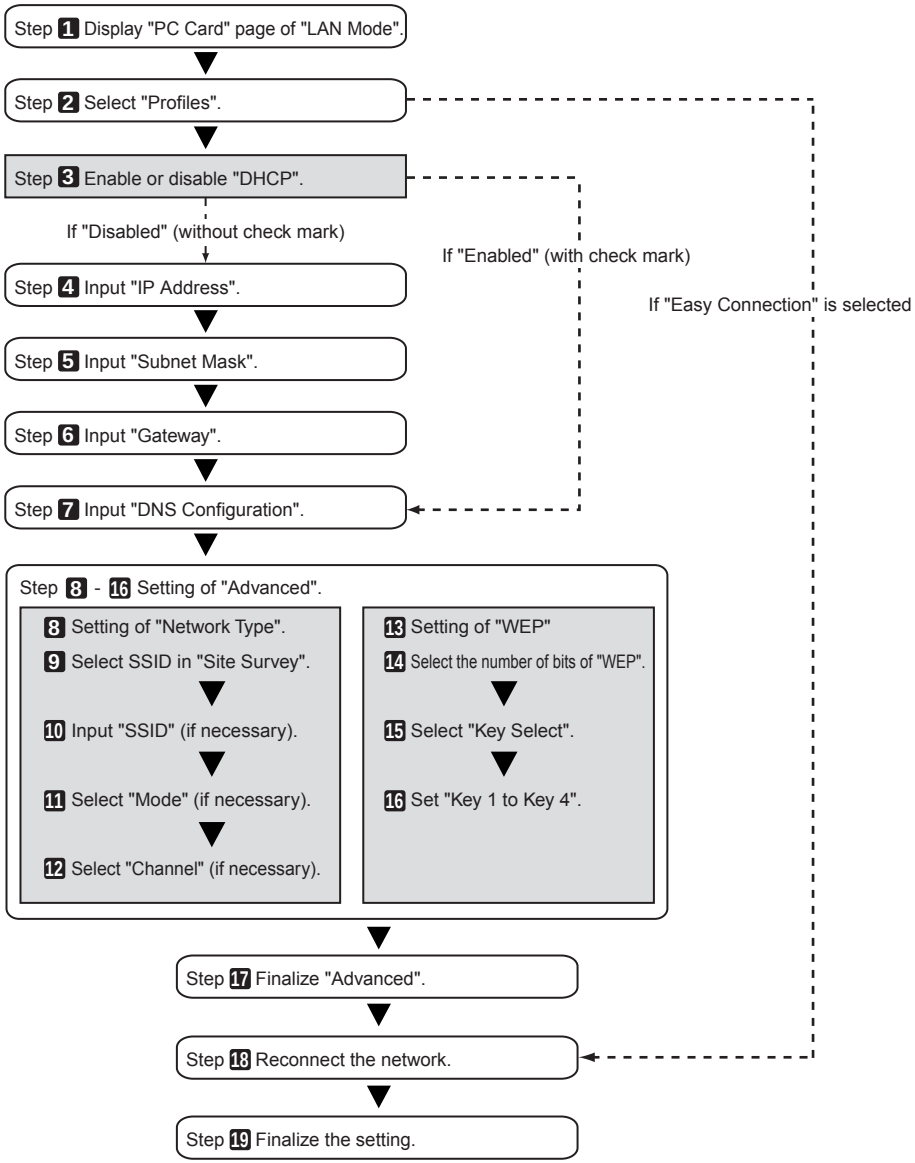


- To make setting of wireless LAN
 Proceed to "5-2. Wireless LAN" (next page).
- To make setting of wired LAN
 Proceed to "5-3. Wired LAN" (page 24).

5-2. Wireless LAN

When inserting the wireless LAN card into the PC card slot of the projector, configure the LAN settings in the “PC Card” page of “LAN Mode” selected from On-Screen Menu.

■ Flow of Setting

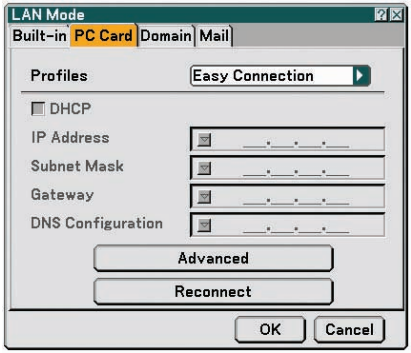


■ Setting Wireless LAN

1 Display the “PC Card” page of “LAN Mode”.

Configure the setting of wireless LAN in the "PC Card” page of “LAN Mode” selected from On-Screen Menu.

<1> In the “LAN Mode” setting window, if the “Built-in” tab is highlighted, press the (SELECT ▶) button to highlight “PC Card”.
The “PC Card” page will be displayed.



- If “LAN Mode” is not displayed, refer to “5-1. Displaying On-Screen Menu (LAN Mode)” (page 13).

2 Select “Profiles”.

<1> Press the (SELECT ▼) button once to highlight the “Profiles” field and press the (SELECT ▶) button.
<2> Use the (SELECT ▼/▲) button to highlight “Profile 1”, and press the (ENTER) button.

- “Profile 1” or “Profile 2” can be stored in the memory of the projector as the setting for LAN.
- “Easy Connection” is a mode in which the personal computer that runs Image Express Utility 2.0 in the User Supportware 3 CD-ROM is easily connected to wireless LAN.
 Note that “Easy Connection” does not support software other than Image Express Utility 2.0.
- When “Easy Connection” is selected, the IP address and subnet mask do not have to be set. To use “Easy Connection”, the OS of the personal computer must be Windows XP ([Computer Administrator] privilege). It cannot be used with Windows 2000.
 The communication mode is “802.11 Ad Hoc”.

3 Set “DHCP”.

Check this check box if the network to which the projector is to be connected automatically assigns the IP address via the DHCP server.

<1> Press the (SELECT ▼) button once to highlight the “DHCP” check box and press the (ENTER) button.

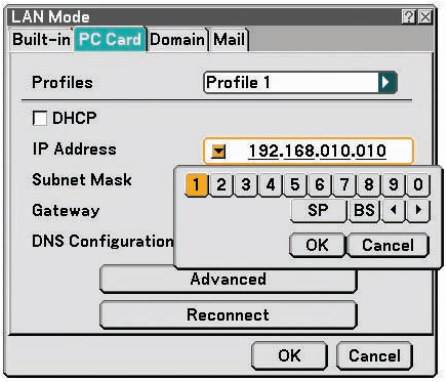
A check will be given if there is no mark found in the box.

- To clear the check box, press the (ENTER) button once again.
- If “DHCP” is checked, move the highlight to “Advanced” and press the (ENTER) button. Proceed to step 9 (page 19). Input “DNS Configuration” field as necessary.
- If “DHCP” is not checked, input “IP Address”, “Subnet Mask”, “Gateway”, and “DNS Configuration” as necessary. After each item has been set, move the highlight to “Advanced” and press the (ENTER) button. Proceed to step 9 (page 19).

4 Input “IP Address”.

If “DHCP” is not checked, input the IP address assigned to the projector by the administrator of the network to which the projector is connected.

<1> Press the (SELECT ▼) button once to highlight the “IP Address” field and press the (ENTER) button.
The software keyboard will be displayed.



<2> Use the (SELECT ▼▲◀▶) button to select a number to input, and press the (ENTER) button. The characters will be input.

<3> Repeat step <2> above to input the IP address.

- Each button on the software keyboard has the following function.
 - “SP” Inputs space.
 - “BS” Deletes one character to the left of the character insertion position in the “IP Address” field.
 - “◀”“▶” Moves the character insertion position in the “IP Address” field to the left or the right.
 - [OK] Finalizes the input character and closes the software keyboard.
 - [Cancel] Cancels the input character and closes the software keyboard.

5 Input “Subnet Mask”.

If “DHCP” is not checked, input the subnet mask of the network to which the projector is connected.
The method of inputting is the same as that of the “IP Address” field.

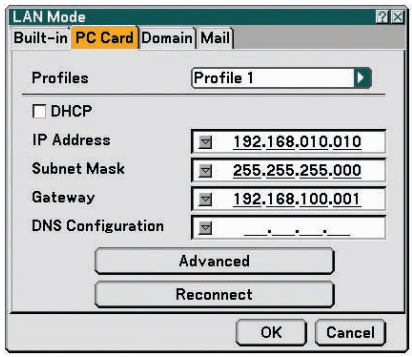
6 Input “Gateway”.

If “DHCP” is not checked, input the default gateway of the network to which the projector is connected.
The method of inputting is the same as that of the “IP Address” field.

7 Input “DNS Configuration”.

Set the IP address of the DNS server of the network to which the projector is connected.
The method of inputting is the same as that of the “IP Address” field.

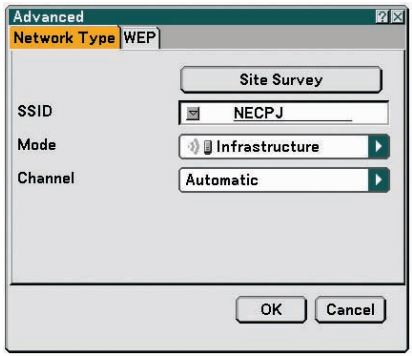
Example of setting 1



8 Select “Advanced”.

Set “Network Type” and “WEP” (encryption) specific to wireless LAN.

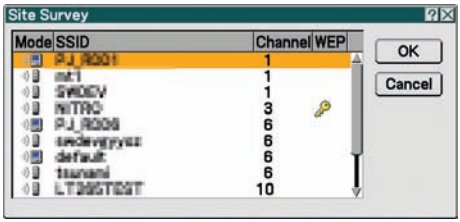
<1> Use the (SELECT ▼/▲) button to highlight “Advanced” on the “Profile” page and press the (ENTER) button.
The “Advanced” screen will be displayed.



9 Select SSID from “Site Survey” (if necessary).

A list of SSID that can be connected to wireless LAN in this place are displayed, and the SSID that are to be connected are selected from this list. When SSID is selected from the list, the “SSID” field, “Mode” field and “Channel” field will also be automatically set.

<1> Press the (SELECT ▼) button once to highlight “Site Survey” and press the (ENTER) button.
Searching SSID will begin.
When searching SSID is complete, a list of SSID is displayed.



Icon

..... Access point

..... Personal computer (Ad Hoc)

..... WEP setting

<2> Use the (SELECT ▼/▲) button to highlight the SSID of the network to be connected.
Press the (SELECT ▶) button once to highlight [OK] and press the (ENTER) button.
If the SSID to be connected is not on the list, press the (EXIT) button.

Note

To connect SSID for which WEP is set, the same setting must be made on the projector (page 21).

10 Input or edit “SSID” (if necessary).

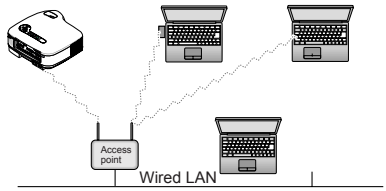
SSID selected in “Site Survey” are automatically input.
If the highlight is moved to the “SSID” field and the (ENTER) button is pressed, a software keyboard is displayed and characters can be input or edited.
The default setting of the projectors is “NECPJ”.

11 Select “Mode” (if necessary).

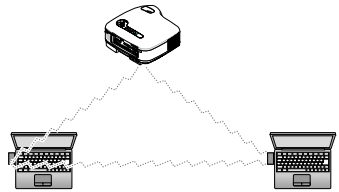
The communication mode of the SSID selected in “Site Survey” are automatically selected.
The settings can be changed by moving the highlight to the “Mode” field and pressing the (SELECT ▶) button.

- “Infrastructure” This is selected if communication is performed with two or more devices connected by wired or wireless LAN via an access point.
- “802.11 Ad Hoc” This is selected to perform peer-to-peer communication between the projector and a personal computer by using only wireless LAN.

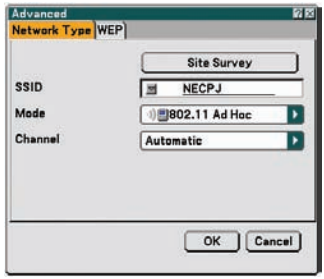
Example of connection when “Mode” is “Infrastructure”



Example of connection when “Mode” is “802.11 Ad Hoc”



Example of setting 2



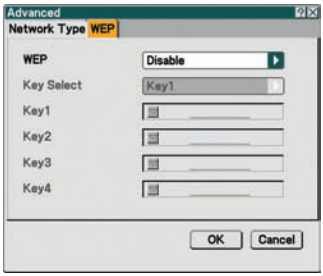
12 Select “Channel” (if necessary).

Select a channel for communication using wireless LAN.
If neighboring channel numbers are used in one area, the speed of wireless LAN communication decelerates. To avoid such a situation, select discrete channel numbers.
The setting upon shipment is "Automatic".

13 Select “WEP” page (if necessary).

Proceed to step 17 if WEP is not set.

<1> Use the (SELECT ▼/▲) button to select the “Network Type” tab, and press the (SELECT ▶) button to highlight the “WEP” tab.
The “WEP” page will be displayed.



14 Select “WEP”.

Select whether WEP (encryption) is performed or not.
To perform WEP (encryption), set an encryption key.

- Disable WEP (encryption) is not performed. There is a danger that the contents of communication are monitored.
- 64 bit 64-bit data is used as an encryption key of WEP.
- 128 bit 128-bit data is used as an encryption key of WEP.
- 152 bit 152-bit data is used as an encryption key of WEP.

Security is reinforced as the number of bits is increased.

15 Select “Key Select” (only when WEP is selected).

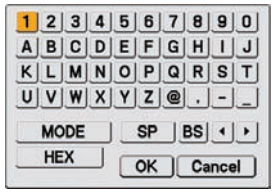
If “64 bit”, “128 bit”, or “152 bit” is selected from “WEP”, select which of the following encryption keys, “Key 1” to “Key 4”, is to be used.

16 Input “Key 1” to “Key 4”.

If “64 bit”, “128 bit”, or “152 bit” is selected from “WEP”, input an encryption key.
Set the same encryption key as the access point and personal computer to be connected by the wireless LAN.
Four types of keys can be input for WEP.

Authentic Method	Alphanumeric Character (ASCII)	Hexadecimal Number (HEX)
64 bit	5 characters	10 characters
128 bit	13 characters	26 characters
152 bit	16 characters	32 characters

<1> Use the (SELECT ▼/▲) button to select an item for which the encryption key is to be input and press the (ENTER) button.
The software keyboard will be displayed.



<2> Use the (SELECT ▼▲◀▶) button, move the highlight to a character, and press the (ENTER) button.
<3> Repeat step <2> above to input the encryption key.
The character will be input.

- Each button on the software keyboard has the following function.
 - “◀” “▶” Move the character insertion position in the encryption key field to the left or the right.
 - “MODE” Selects uppercase, lowercase, or special characters.
 - “SP” Inputs space.
 - “BS” Deletes one character to the left of the character insertion position in the encryption key field.
 - [OK] Finalizes the input character and closes the software keyboard.
 - [Cancel] Cancels the input character and closes the software keyboard.
 - “HEX” or “ASCII” Selects alphanumeric character input or hexadecimal number input.
 - When “HEX” is displayed, alphanumeric characters (ASCII) can be input.
 - To input hexadecimal numbers, move the highlight to “HEX” and press the (ENTER) button. “ASCII” will be displayed instead of “HEX”, and hexadecimal numbers can be input.
 - When hexadecimal numbers can be input, “0x” is automatically displayed at the beginning of the input field.

17 Finalize “Advanced”.

<1> Use the (SELECT ▼/▲) button to highlight [OK] and press the (ENTER) button.
The “PC card” page will be displayed again.

18 Reconnect the network.

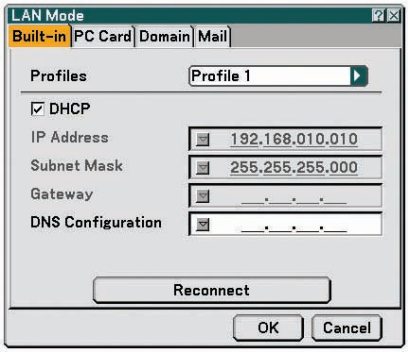
<1> Use the (SELECT ▼/▲) button to highlight “Reconnect” and press the (ENTER) button.

19 Finalize the setting.

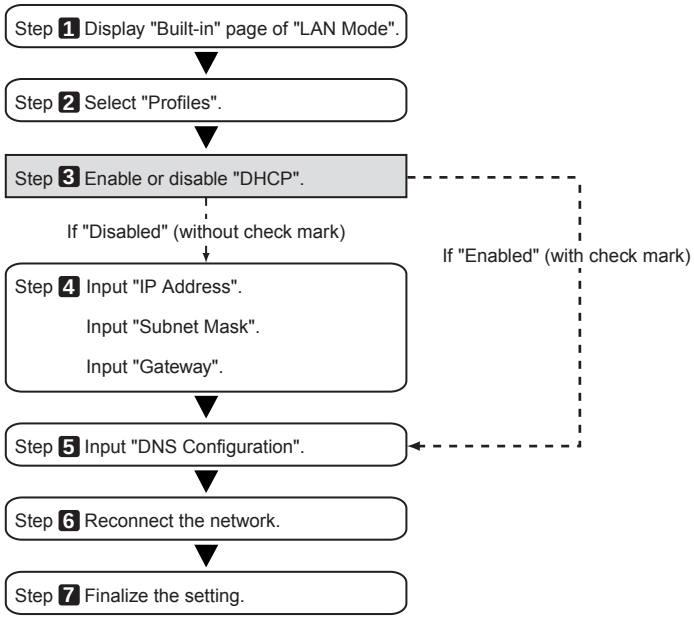
<1> Use the (SELECT ▼/▲) button to highlight [OK] and press the (ENTER) button.
The contents of the setting will be stored in the memory of the projector.

5-3. Wired LAN

When connecting a LAN cable to the LAN port of the projector, configure the LAN settings in the “Built-in” page of “LAN Mode” selected from On-Screen Menu.



■ Flow of setting



■ Setting Wired LAN

1 Display the “Built-in” page of “LAN Mode”.

Configure the setting of wired LAN in the “Built-in” page of “LAN Mode” selected from On-Screen Menu. If “LAN Mode” is not displayed, refer to “5-1. Displaying On-Screen Menu (LAN Mode)” (page 13).

2 Select “Profiles”.

“Profile 1” or “Profile 2” can be stored in the memory of the projector as the setting of LAN.

<1> Press the (SELECT ▼) button once to highlight the “Profiles” field and press the (SELECT ▶) button.
<2> Use the (SELECT ▼/▲) button to highlight “Profile 1” or “Profile 2”, and press the (ENTER) button.

3 Set “DHCP”.

Follow the same procedure as in “5-2. Wireless LAN” (page 17).

4 Input “IP Address”, “Subnet Mask”, and “Gateway”.

Follow the same procedure as in “5-2. Wireless LAN” (page 17,18).

5 Input “DNS Configuration”.

Follow the same procedure as in “5-2. Wireless LAN” (page 18).

6 Reconnect the network.

<1> When all the above items have been input or set, use the (SELECT ▼/▲) button to highlight “Reconnect” and press the (ENTER) button.

7 Finalize the setting.

<1> Use the button to highlight [OK] and press the (ENTER) button.
The setting will be stored in the memory of the projector.

6. Setting the LAN Setting of Personal Computer

([Example] Wireless LAN of Windows XP: Ad Hoc connection)

This section explains the procedure for Ad Hoc connection of wireless LAN between the personal computer and projector, by using the wireless network setting function with Windows XP Service Pack 2 (SP2).

Preparation:

- Install a commercially available wireless LAN card driver to your personal computer, and complete setup of the wireless LAN card. For how to install the driver, refer to the User's Manual of the wireless LAN card.
- Check the display of the Windows XP taskbar. If a network connection utility dedicated to a wireless LAN card is executed, terminate that utility.
- Make the wireless LAN setting of the projector. For details, refer to "4. Attaching Wireless LAN Card" (page 11) and "5. Setting the LAN Setting of Projector" (page 13). Shown below is an example of the wireless LAN settings for the projector.

[Example of settings for projector]

Contents	Settings
IP Address	192.168.100.10
Subnet Mask	255.255.255.0
SSID	NECPJ
Mode	802.11 Ad hoc
WEP	64 bit
Key Select	Key 1
Key 1	NECVT

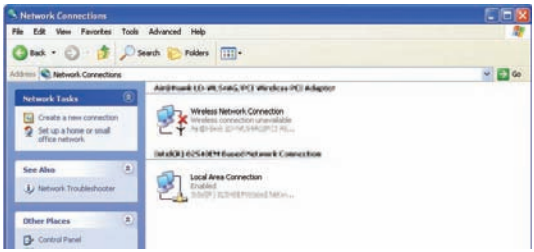
1 Click Windows [Start] → [Control Panel].

The "Control Panel" window will be displayed.

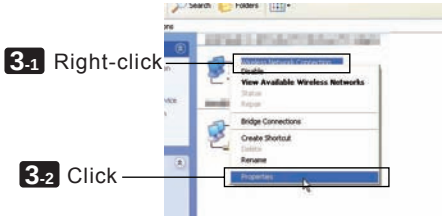
2 Double-click the "Network Connections".

- If the "Control Panel" window displays categories (with a blue background), click [Network and Internet Connections], and then click [Network Connections].

The "Network Connections" window will be displayed.



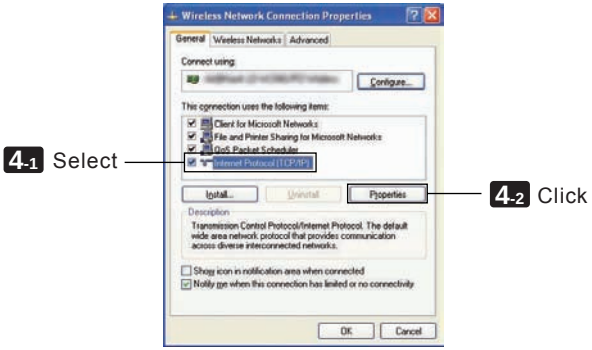
3 Right-click the [Wireless Network Connection] icon and click [Property].



A property window for wireless network connections will be displayed.



4 From the list of [This connection uses the following Items:], select (click) [Internet Protocol (TCP/IP)] and click [Properties].

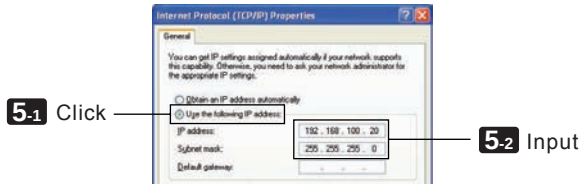


- The property window for wireless network connections will be displayed again.

5 Click [Use the following IP address:], and input [IP address]and[Subnet mask].

- If, for example, the [IP address] and [Subnet mask] of the projector are set as show in “Example of settings for projector” on page 26, set the personal computer as shown below.
- Example of setting the IP address and subnet mask.

	Projector (page 26)	Personal computer(Screen Below)
IP Address	192.168.100.10	192.168.100.20
Subnet Mask	255.255.255.0	255.255.255.0

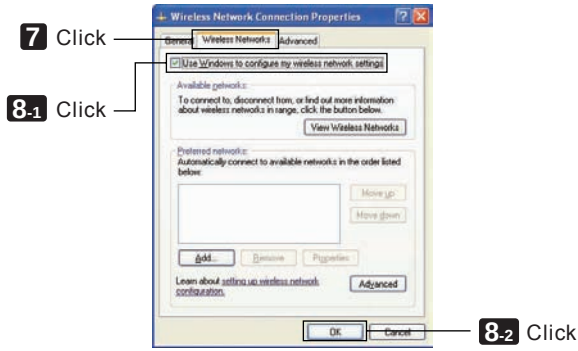


6 Click [OK].

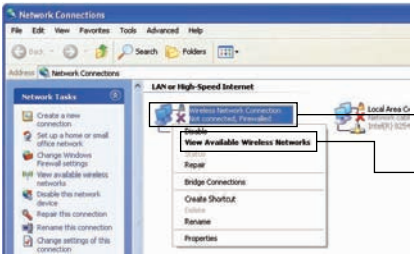
A property window for wireless network connections will be displayed.

7 Click the [Wireless Networks] tab.

8 Click [Use Windows to configure my wireless network settings], display the check mark (☑) and click [OK].

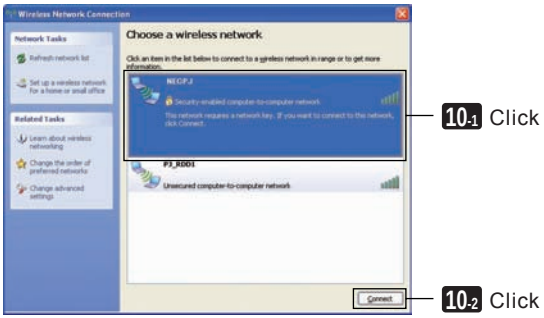


9 Right-click the [Wireless Network Connection] icon and click [View Available Wireless Networks].



The “Wireless Network Connection” window is displayed.

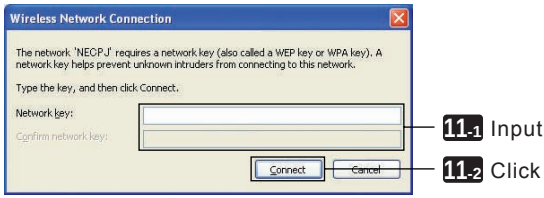
10 From the list, select SSID of the projector to be connected and click [Connect].



The “Wireless Network Connection” window is displayed.

11 Input WEP key to set up an encryption key and click [Connect].

- Input an encrypiton key of “WEP”. Enter “NECVT” in the Network key box, for example, if you have the WEP setting on the projector side configured with “64bit” and have “NECVT” input as Key 1.
- The same encryption key should be input in the confirmation.



The window above does not appear unless WEP key is not configured on the projector to be connected. Follow the steps below to change the encryption settings. For details, see the Windows Help file.

(1)Click [Change advanced settings] from the screen in step 10 above.
The “Wireless Network Connection Properties” window is displayed.

(2)Click the [Wireless Network] tab.

(3)Select SSID of the projector under [Preferred Networks] and click [Properties].
The “Properties” of the selected SSID is displayed. Configure the wireless network key under the [Association] tab according to those for the projector.

This Completes the Ad Hoc connection of wireless LAN on the personal computer (Windows XP). Use each software program in User Supportware 3 to transmit the PC screen to the projector.

7. Refer to “User’s Guide” and Help

Each software program in User Supportware 3 contains each help file that explains the functions and operation methods in detail.
Also, “User’s Guide” (PDF) explains the basic operation procedure of each software program carefully.

7-1. Displaying “User’s Guide” (PDF)

Important

- User Supportware 3 CD-ROM does not contain Acrobat Reader or Adobe Reader. If no PDF file can be opened from your personal computer, download Adobe Reader from the Adobe Systems Incorporated home page, and install it.

1 **Turn on your personal computer to start Windows.**

2 **Insert User Supportware 3 CD-ROM in the CD-ROM drive.**

The menu will be displayed.



3 **Click [Viewing User’s Guide].**

[User’s Guide] will be displayed.
For the following operations, browse User’s Guide according to Acrobat Reader or Adobe Reader operation method.

Reference

If the above menu is not displayed, follow these steps.

1. Click [Start] of Windows.
2. Click [Run...].
3. In the [Open:] field, enter the CD-ROM drive name *1 (e.g., “Q:\”) followed by “SETUP.EXE” (e.g., “Q:\SETUP.EXE).

 *1 The CD-ROM drive name will vary depending on your personal computer’s configuration.
4. Click [OK].

The menu will be displayed.

7-2. Using Help

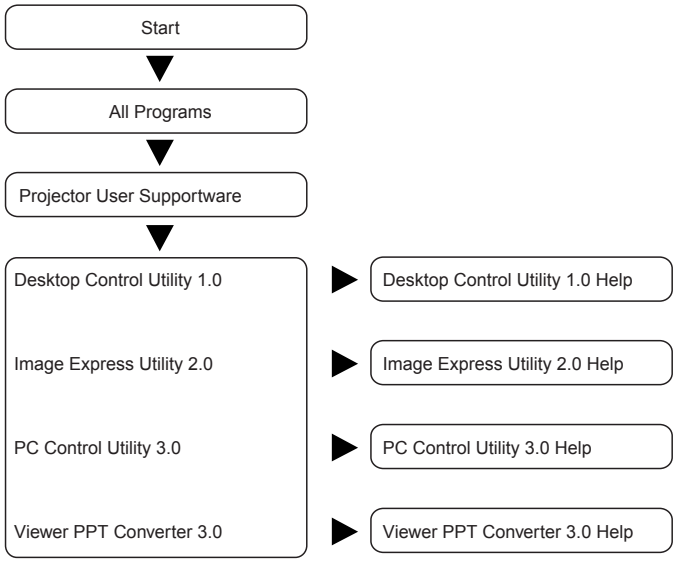
The functions and operation of each software are described on the Help screen. This section introduces how to display and use the Help screen.

Note

- The following instructions use operations under Windows XP as an example.
- Before displaying Help, install each software onto your personal computer from the User Supportware 3 CD-ROM. You cannot run the programs nor view Help directly from the CD-ROM.

■ Displaying Helps other than Ulead Photo Explorer 8.0

Click in the following order.



Reference You can also display the Help by starting each program and clicking the [Help] menu or [Help] icon of that program.

■ Displaying Ulead Photo Explorer 8.0 Help

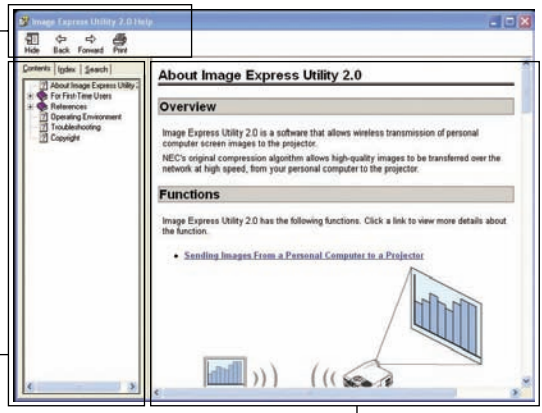
To display the Help of Ulead Photo Explorer 8.0, start the software and make your selection from the [Help] menu.

1 Click [All Programs] in the start menu → [Ulead Photo Explorer 8.0 SE Basic] → [Ulead Photo Explore 8.0 SE Basic], in that order.

The Ulead Photo Explorer 8.0 will start.

2 From the Ulead Photo Explorer 8.0 menu bar, select [Help] → [Ulead Photo Explorer Help] or [Projector User Supportware Help].

■ Help Screen Layout



[Hide] button
Shows/hides the left pane.

[Back] button
Displays the previously displayed topic.

[Forward] button
Displays the previously displayed topic when using the [Back] button to step back through the topics.

[Print] button
Prints the displayed Help topic.

[Contents] tab
Displays the contents of Help. Select a topic to display contents in the right pane.

[Index] tab
Displays a list of keywords for Help. Select a keyword to display the associated topics.

[Search] tab
Searches through Help for the entered text.

Explanation displaying area
Displays content for the topic selected in the left pane.

Audio Visual Products

2900 Dukane Drive
St. Charles, Illinois 60174
www.dukcorp.com/av

Toll-free: 800-676-2487
Fax: 630-584-5156
e-mail: avsales@dukcorp.com

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